FEEDSTUFFS®

★ A WEEKLY NEWSPAPER ★

FOR THE FEED MANUFACTURER, JOBBER, BROKER and DEALER

Volume 30—Number 19 | MAY 10, 1957 | 1 Year $4, 2 Years $7

AFMA Elects 10 Directors for 3-Year Terms

CHICAGO—Ten representatives of the feed manufacturing industry have been elected to three-year terms on the board of directors of the American Feed Manufacturers Assn., according to W. T. Diamond, AFMA secretary-treasurer.

He announced the official results of balloting which took place during April among active members of the association in all 48 states.

Five of the 10 will serve on the AFMA board for the first time. They are Sherm Applebaum, Athens (Ga.) Milling Co.; C. Grattan Lindsey, Lindsey-Robinson & Co., Roanoke, Va.; Henry C. Tilford, Jr., Dixie Grain Co., Shelbyville, Tenn.; Edward Woolman, Hales & Hunter Co., Chicago, and Steele Wright, Texas Farm Products Co., Nacogdoches, Texas.

The other five were elected to a second term of three years. They are B. D. Eddie, Superior Feed Mills, Oklahoma City; J. B. Eshelman, John W. Eshelman & Sons, Lancaster, Pa.; E. D. Griffin, Allied Mills, Inc., Chicago; J. D. Sykes, Ralston Purina Co., St. Louis, and E. W. Turner, The Grange Co., Modesto, Cal.

Background

Sherman H. Applebaum, president and general manager, has been with Athens Milling Co. four years. Pre-

(Turn to AFMA DIRECTORS, page 4)

N.Y. Governor Vetoes Drug, Health Bill

ALBANY, N.Y.—Gov. Averell Harriman of New York has vetoed a bill which would have legalized the use of drugs and medications in feed and the sale of proprietary animal health remedies in package form by feed stores and hatcheries.

According to Austin W. Carpenter, executive director of the Eastern Federation of Feed Merchants, Inc., which had urged approval of the legislation, known as the Brydges-Brady Bill, the governor vetoed the bill "because of opposition to it from the New York Consumer Council, the New York Department of Agriculture and Markets, the New York State Veterinary College at Cornell University and the veterinarian profession."

The bill would have required that feed stores or hatcheries desiring to admix drugs and medications with feeds and to sell veterinary preparations and vaccines in package form, register with the pharmacy division of the New York State Educational Department.

It would, said an earlier EFFM statement, only legalize a practice that has been outstandingly prevalent for a good number of years, namely, that livestock and poultry operators in the state depend upon their feed suppliers for medicated feeds and for proprietary veterinary preparations and vaccines which they use in animal and poultry health management.

Poultry Promotion Bill Signed in California

SACRAMENTO, CAL.—The bill creating a 21-man California Poultry Promotion Council has been signed into law by Gov. Goodwin J. Knight.

The much disputed bill, which was introduced by Richard A. McCollister, a Marin County assemblyman, directs the newly-formed council to stimulate the sale of California-grown poultry and poultry products.

The Governor's signature does not assure a long life for the council, however. The bill provides that a referendum be held prior to Jan. 31, 1961, in which 51% of all the poultrymen in the state must vote in favor of the council. If the referendum fails, the act will be automatically repealed.

(Turn to POULTRY BILL, page 81)

New Program Bolsters Free Trade in Grain

WASHINGTON—A major step in breaking the government stranglehold on trading in grain will be taken beginning Monday, May 12.

The U.S. Department of Agriculture has announced that the revised export program for feed grains—under which free market supplies will move into export channels with export subsidies-in-kind from Commodity Credit Corp. stocks—will be started for corn on May 12. The program will become effective for other feed grains on July 1.

The new program will have significant effects on the grain and feed industries in affecting grain trading operations and as an influence on grain prices.

The new program is designed to encourage movement of feed grains from free market supplies into export channels. CCC will give a subsidy-in-kind grain payment at the seaboard to the exporter. The amount of the subsidy is to be on a bid basis.

(Also see text of regulations on page 8.)

Trend Reversed

Commenting on the program, Alvin E. Oliver, executive vice president of the Grain & Feed Dealers National Assn., pointed out that after many years of frustration, planning and negotiations, the trend of government operations in the grain trade has been reversed.

Thus, the feed grains used either by the feed industry in its feeds or directly by its customers, will be coming more under normal market influences. It means more of a free market basis for the grain and feed industries.

Selling Non-Storable Grain

Mr. Oliver also noted that the government plan for selling non-storable feed grains at the marketing points nearest the point of acquisition by CCC is of major importance to the industry, including country elevator operators.

He urged the grass roots segment of the grain industry to take advantage of this opportunity to merchandise more of the feed grains at the country level.

Under the new export plan, ex-

(Turn to GRAIN PLAN, page 85)

Senate Unit Recommends Modifications Of Farm Commodity Truck Exemption

By JOHN CIPPERLY
Feedstuffs Washington Correspondent

WASHINGTON—A somewhat modest approach to modification of the law concerning the agricultural haulers' exemption from Interstate Commerce Commission rate controls was taken by a Senate subcommittee on interstate commerce in its report last week.

Reporting its findings on national transportation problems, the subcommittee recommended modification of the ICC proposal to "halt further expansion of the exemption."

At the same time, the subcommittee stood shoulder to shoulder with the ICC in the recommendation that private motor truck haulers should be under economic regulation.

In short, this means that back hauls by private motor truck haulers would become subject to ICC rate regulations unless the owner of the truck has complete control and end use of the commodity being transported.

The Senate subcommittee also requested the Senate Finance Committee to examine the excise tax on freight and advocated a repeal or reduction of that impost.

This Senate subcommittee is headed by a most influential member of the Senate, Majority Senator George Smathers (D., Fla.). The subcommittee report is expected to gain the approval of the full committee and to go to the Senate floor.

Significantly favorable to the poultry industry is the wording of the

(Turn to TRUCKS, page 4)

Chicago Feed Club Plans Spring Dance

CHICAGO—The biggest night of the year is planned for the next meeting of the Chicago Feed Club. It is the annual spring dance, and members and guests, with their ladies, are expected to turn out in large numbers for the party at the Furniture Club of America here May 16.

The social hour begins at 6:30 p.m., with dinner at 7:30. A choice of steak or lobster is offered, and a special door prize drawing will be held for the ladies. Music will be furnished by Phil Levant. Advance reservations are necessary, and should be made through Ed DeLaet, St. Regis Paper Co., 18 S. Michigan Ave., Chicago 3.

Kansas Legislature Votes Funds for K-State Mill School

KANSAS CITY—The Kansas legislature has voted an appropriation of $1,150,000 from general revenue funds of the state for the purpose of rebuilding Waters Hall and the flour and feed school facilities at Kansas State College, Manhattan, which were damaged by fire last August. Gov. George Docking was expected to sign the appropriation measure. Funds will be available July 1.

In making the appropriation from the general revenues of the state, the legislature established a policy of replacing buildings destroyed in such disasters from the same source of funds which would be used in the payment of insurance premiums. The state does not carry insurance on public buildings.

It probably will be a year and a half at least before the new building will be ready for operation, Dr. John Shellenberger, head of the department of flour and feed milling industries at K-State, has estimated. Dr. Shellenberger said that plans for the new milling wing on the building are

(Turn to K-STATE, page 85)

FEEDSTUFFS *Features This Week*

SWINE RAISING SYSTEM: A new swine raising system being recommended by a feed company is described on **page 40.**

POULTRY NUTRITION: A review of papers presented at the Informal Poultry Nutrition Conference will be found on **page 10.**

BROILER AREAS: Practices in major broiler areas are compared by a USDA authority on **page 45.**

FEED FIRM'S GROWTH: Careful planning has led to rapid growth of a feed company whose operations are outlined on **page 62.**

TOMATO PULP: The value of cull tomatoes processed into a feed is being tested in Florida. See **page 24.**

— REGULAR FEATURES —

Feedstuffs Index	26	Up or Down	72
Joe Brooks	30	Putting Research to Work	74
Worth Looking Into	53	Classified Ads	78
Convention Calendar	59	Feed Markets in Detail	82

FEEDSTUFFS

A Weekly Newspaper Published by
THE MILLER PUBLISHING CO.
2501 WAYZATA BLVD., MINNEAPOLIS, MINN.
(Address Mail to P. O. Box 67, Minneapolis 40, Minn.
(Telephone: FRanklin 4-5200. All Offices Serviced by Bell System Teletype)

EDITORIAL STAFF—George L. Gates, Editor; Roger Bergland, Managing Editor; John Cipperly, Washington Correspondent; Emmet J. Hoffman, Merchandising Editor; John S. Franklin, James E. Sharon and James H. Ross, Editorial Assistants; Duane F. McKenzie, Research Director.

WASHINGTON CORRESPONDENT—John Cipperly, 604 Hibbs Building, Washington, D. C., Telephone, Republic 7-8534.

ADVERTISING STAFF—Wilfred E. Lingren, Advertising Director; Carl R. Vetter, Advertising Department Manager; Bruce A. Kirkpatrick, Advertising Production Manager; Leland C. Hubert, Assistant Advertising Production Manager; R. Dale Swenson, Promotion Manager.

BUSINESS STAFF—Martin E. Newell, Chairman of the Board of Directors; Milton B. Kihlstrum, President and Treasurer; Wilfred E. Lingren, Executive Vice President; Don E. Rogers, Vice President; Paul L. Dittemore, Vice President; Donald G. Neth, Secretary; T. A. Gaden, Circulation Manager; James G. Pattridge, Assistant Treasurer; Richard L. Ostlund, Office Manager; Walter O. Buchkosky, Production Superintendent.

BRANCH OFFICES—SOUTHWEST, Martin E. Newell, Manager; Thomas E. Letch, Assistant Manager, 612 Board of Trade Bldg., 1005 Wyandotte St., Kansas City 5, Mo. (Tel. Victor 2-1350); EASTERN STATES, Paul L. Dittemore, Manager; George W. Potts and James W. Miller, Advertising Sales Representatives, Suite 3214, 551 Fifth Ave., New York 17, N. Y. (Tel. Murray Hill 2-2185); CENTRAL STATES, Don E. Rogers, Manager; Henry S. French, Assistant Manager; Amos W. Standish, Advertising Sales Representative, 2832 Board of Trade Bldg., 141 W. Jackson Blvd., Chicago 4, Ill. (Tel. Harrison 7-6782); NORTHWEST, Paul A. Anderson, Advertising Sales Representative, P. O. Box 67, Minneapolis 40, Minn. (Tel. Franklin 4-5200).

Correspondence regarding subscriptions, changes of address, etc., should be sent to Circulation Manager, Feedstuffs, Box 67, Minneapolis 40, Minn. Single copies 20¢. Subscription rates: One year $4, two years $7, in the U.S., U.S. possessions, Canada and Pan-America. Add $3 a year for postage to other countries. Readers are urged to give prompt notice of change of address and to anticipate future changes by at least two weeks' advance notice. Ask postman for form 22-S. Feedstuffs accepts subscriptions only through its own offices; no subscription solicitors are employed or recognized. Associated publications: The Northwestern Miller, The American Baker, Milling Production, Croplife, Farm Store Merchandising.

Entered as second-class matter Feb. 25, 1947, at the post office at Minneapolis, Minn., under the Act of Mar. 3, 1879

The regional circulation of this issue is concentrated in the southwestern states

A New Direction

THE government is getting out of the grain business. Wouldn't a flat statement like that wake up the nodders in the back row at a grain and feed convention? Wouldn't it make a stir on the trading floor of a grain exchange if announced on the public address system about 20 minutes before the final gong?

Well, the statement can't quite be made. But it certainly can be said in a more qualified way that the government is making a move that indicates a healthy start on getting out of some phases of the grain business. A complete withdrawal of government activities in handling grain cannot, of course, be accomplished until surpluses acquired through the support program are disposed of and no more grain flows into government hands. Such a drastic change doesn't appear to be around any nearby corner, although there are many hopeful signs that a more realistic type of farm program may win public and political sanction before too long.

The announcement this week of the government's payment-in-kind export program for feed grains (page 1), of course, is the subject of this commentary. Trade observers see in it not the whole loaf of free trade in grain markets, but there is no doubt that the new program exposes a fine looking slice of accomplishment in that direction.

As Al Oliver, executive vice president of the Grain & Feed Dealers National Assn., told grain and feed men in Wichita last week, "The trend of government operations in the grain trade has been reversed." Not just halted or slowed down, but reversed. That, indeed, is an accomplishment when one considers the momentum generated by as huge an operation as the government's grain dealings, often described as the biggest single factor in the grain market.

★ ★ ★

THE program calls for selling of non-storable grain at the marketing points nearest the point of acquisition by the Commodtiy Credit Corp., a matter which is of major importance to grain merchandisers and country elevator operators. Exporters, terminal operators, the grain exchanges and all other segments of the grain trade also will recognize in this development a welcome turn to greater freedom in grain trading.

Except to the extent that feed men are also engaged in the grain business, the effect of the new program may not appear immediately to be of direct importance. However, since feed men deal constantly with the grain trade, they cannot help but recognize the value of this turn to freer trading in grain. Government competition with private trade definitely is not a popular idea among feed men, who have built a tremendous service industry by maximum use of private resources and private skill and ingenuity. Thus, the accomplishment of this reversal of the government's direction in the grain trade is really a milestone for all businessmen who hold to the values of free trade.

Ever since President Eisenhower referred to the matter in his message vetoing the price support freeze, there has been a great deal of quiet excitement in trade circles closest to the U.S. Departmnt of Agriculture policymakers. Two weeks ago the USDA said it was going to announce a program, and then after a final seven-day delay, the details of the program were announced.

★ ★ ★

TRADE interpretations of the market impact of the move probably will not be available for a few weeks, but there is little doubt that its effects will be an important part of market news as time goes by. Those who want to find out immediately where they might fit into this program are invited to read the text of the regulation, which appears in this issue of Feedstuffs. Meanwhile, the broader implications of the news have the spotlight. After years of work, planning and negotiations something important has been accomplished. The accomplishment should not be treated casually, not just because grain trade leaders have worked so hard to bring it about, but because a very large corner has been turned and the move in the new direction must be accelerated. Some advice and comment from E. B. Evans, chairman of the executive committee of the GFDNA, are appropriate:

"This is probably the last chance the grain trade will have to prove that the free market system is the most economical and efficient in the world. It rests squarely with the country elevators to make the program work, as the whole plan is based upon the sale of nonstorable grain at the point of origin. I have firm convictions that our trade will make the program successful."

It is important that everyone concerned with freedom from unwarranted government intervention in private trade recognize the true value of this turning of the corner and do their utmost to keep it turned.

A FEEDSTUFFS FEATURE

FORMULA FEEDS: HOW'S BUSINESS?

Late spring and relatively good feeding price ratios continued to hold feed demand at a stronger pace than a year ago through most of the nation, but slower demand than the previous week was noted in some areas. Sales continued to be good in the hog areas, and poultry feeds were also moving well despite some reports of less urgency than former years. The return of pastures and farm field work were said to be also affecting demand somewhat. The index of feedstuff prices was 86.3, compared with 86.7 the previous week and 79.6 a year ago. The feed grain index declined to 69.9 as against 70 the week before and 75.3 a year earlier. (Feed ingredient details on pages 82-84.)

Northwest

Formula feed sales held at a good level through the past week, but the urgency noted in recent weeks has disappeared despite some reports of more business than the previous week.

A softer ingredients market brought a drop in prices ranging from "off slightly" down to a cut of $1.50. Some observers felt that the lower prices may result in a period of hand to mouth buying, but others said they believed the lower prices are nothing more than an adjustment in the market and would have no noticeable effect on demand.

Hog feeds continued to be the sales leader. Poultry feed sales were rated from good to excellent, and starters were generally good. A return of pasture brought seasonal drops in other lines.

Running time ranged from a five-day week with two shifts to extended shifts and part of a third shift.

Central States

Feed business was a trifle slower during the week ending May 7. No big turndown, however, and observers said volume probably will level off at a high plateau and remain so for the next several weeks.

Part of the let-up is natural, it was thought. The rise in sales had been almost perpendicular for the last several weeks, and mere physical limitations called for a levelling off eventually. Also, prices were softening, and this generally makes for a reluctance to build inventories.

Cattle feeding seemed to have slowed appreciably during the week, and with turkeys late in getting started this year volume had to give. Hogs, however, continued to provide strong demand.

It generally was agreed, too, that part of the slackness in the first period of May is a natural result of the big volume accomplished in the last part of April. "We merely borrowed part of the business usually done in May," one observer said.

Southwest

Formula feed business volume remained relatively unchanged the past week. While a number of manufacturers noted a slacking off in orders, others increased their volume. The sales level was rated fair to good, with running time ranging from four and a half to six days. Order backlogs also varied.

Pig starters and pig concentrates seemed to command the most sales interest. Chick starters were moving fairly well, but there didn't seem to be the urgency in demand that has been experienced in previous years. Turkey starters were also expanding in volume, but not at a rapid pace.

Cattle and dairy feeds have slowed to little more than a trickle with good pastures throughout the area. Some feed was moving for cattle in feed lots, but this too seemed to have decreased in volume.

Reasons cited for slower demand were centered around prices. It was said that the feeders were backing away from higher prices that were just reaching into the field in a substantial way. There was general agreement that buying was hand-to-mouth, both by dealers and feeders.

Prices were expected to be off 50¢ to $2, depending on the kind of feed. Corn prices were up, but most other ingredients had come down from a week earlier.

Mountain States

Though not too brisk, formula feed sales seemed to be holding their own during the past week. Cattle feeding volume was good although there was evidence of enough grass before too long to take away some of that market. Ingredient prices remained steady to weak as buyers stocked only for nearby use.

Turkey feed volume continued to rise with the growth of birds on feed. Broiler and layer flocks continued at an even rate which was not too impressive.

Most firms reported business ahead of this time a year ago, but not to the point of being considered satisfactory.

Northeast

Formula feed sales were just fair and the month of May got off to a slow start. Representatives said they expect improvement in the market as the month moves along. Egg mashes continued to lead sales. Starting and growing feeds showed some improvement. Turkey mashes began to move and dairy feeds held.

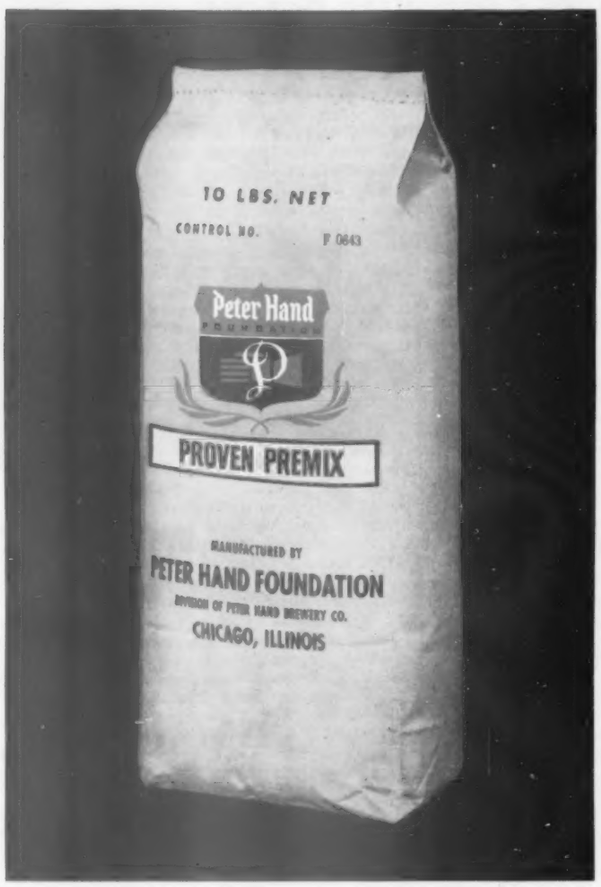
Broiler prices were about the same as a week ago. The supply was adequate and the demand moderate. The market held firm.

Egg prices showed little change in a market that was barely steady to steady. Receipts were liberal with larger sizes in excess in some quarters. The demand was slow to moderate.

Grains showed a downward trend with corn and oats down 1¢. Barley and wheat held about even. Tallow was off ⅛¢.

(Turn to MARKETS, page 86)

PETER HAND'S PROVEN PREMIX PROGRAM provides needed vitamins, antibiotics and BHT in batch-size 5 and 10 lb. packages!



one bag fortifies one ton!

new and improved Peter Hand premixes

- BROILER
- STARTER
- GROW & LAY
- BREEDER
- TURKEY
- DUCK
- PIG
- DOG
- CALF
- RU-V-ADE (RUMINANT)

custom premixes—to your specifications available with same rigid controls

PETER HAND FOUNDATION

Division Peter Hand Brewery Co.

1000 North Ave., Chicago 22, Ill. • MOhawk 4-6300

convenient, economical way to high-quality feeds!

Here, *in one bag*, is your answer to problems of wastage, time loss and space shortage. Peter Hand Proven Premixes are convenient and economical. And they give you excellent quality control. You eliminate dangerous underfortification and costly overfortification because Peter Hand Proven Premixes provide the *correct* fortification for every feed.

Only the highest quality, full-potency vitamins and other feed additives are used in Peter Hand products to assure maximum compatibility, stability and biological availability. Each Premix is a product of "Progressive Nutrition" developed by the Peter Hand Research Staff, Laboratory and Research Farm.

You'll want the complete details.

mail this coupon today!

Peter Hand Foundation, Dept. F-5-10, 1000 North Ave., Chicago 22, Ill.

Please send me full data on Peter Hand Proven Premixes

NAME ..... TITLE .....

COMPANY NAME .....

ADDRESS .....

CITY ..... ZONE ..... STATE .....

AFMA Plans Convention Banquet To Celebrate Its Golden Jubilee

CHICAGO — The American Feed Manufacturers Assn. has announced program details and reservation plans for the "Golden Banquet," which will be one of the highlights of the organization's 50th annual convention May 21-23 in Chicago.

The dinner and program will be the first such affair at an AFMA convention in 10 years. It is being held to celebrate the association's Golden Jubilee. The banquet will be at 7 p.m. Thursday, May 22, in the Terrace Casino of the Morrison Hotel.

Reservations are to be made in advance, and only AFMA members are being accorded this privilege. According to an AFMA announcement, anticipated convention attendance is twice as great as can be accommodated at the banquet, and therefore there is a possibility that the 1108 available places will be insufficient to meet the demand for tickets. Reservations will be made on a first-come, first-serve basis.

Among those present for the banquet will be more than 100 honored guests and their ladies.

The guests will include national leaders of agriculture and industry; research scientists and educators who have each spent 50 years or more serving agriculture and contributing information of value to feed industry programs; past presidents and chairmen of the board of the AFMA dating back to 1918; and presidents of educational, allied industry and press associations.

Program Plans

The part of the program termed the "Golden Book" will consist of a dramatic presentation of progress by the feed industry, its association and agriculture—"a saga of an industrialized agriculture working together for the benefit of a better standard of American living."

Musical entertainment will be provided by Robert Merrill, radio, television and Metropolitan opera singer. Mr. Merrill has sung leading roles in more than 250 performances, and has made appearances on several network television shows.

TRUCKS

(Continued from page 1)

subcommittee report on the agricultural truck haulers' exemption for the broiler industry.

The report recommends to Congress that present exemptions on agricultural commodities be frozen into the law. This would continue the present regulation which exempts truck hauls of eviscerated and frozen poultry from ICC rate regulation—with the exception of frozen fruits, vegetables and imported commodities.

Imported commodities, the last item, is something of a puzzle to observers here. Traffic experts state that since most agricultural commodities are fungible and subject to commingling, the provision would be impossible administratively. The fruit and vegetable industry is taking initiative to persuade Sen. Smathers to kill that part of the recommendation.

It has been learned, however, that this "imported commodity" exclusion is designed primarily to bring motor truck shipments of cocoa and coffee under ICC control. But the language is broad enough to include other commodities.

Looking ahead, the agricultural exemption will probably not be materially changed except for the above noted exceptions recommended by the Senate subcommittee.

Private Carrier Affected

However, in the case of the private carrier, the subcommittee has concurred in all the ICC criticisms. This would mean that the private carrier, originating a truck haul for his own company account, will not be permitted to take on a return load through the device of invoice or sales slip for delivery at some predetermined location where a buyer is waiting.

The private carrier is headed for a drastic limitation on his operations. And the "buy-sell" loophole under which he has been claiming exemption from ICC rate controls and from the federal excise tax is certain to end when this Congress completes its legislation.

This means that a company using its own fleet equipment will only be able to deliver its own company products and cannot make a backhaul or return load of any commodity or product in interstate commerce unless the owner of truck actually has complete control and end use of the commodity his truck may be carrying.

The entire feed and grain industry should be aware that the private carrier using the return load device through the ownership loophole—a practice which has been called "illegal carriage" by the ICC chairman—avoids the 3% excise tax on freight and thereby creates a most discriminatory condition among shippers.

Proposed Enabling Act for Turkey Industry Submitted

CHICAGO — A proposed enabling act for the turkey industry has been submitted for introduction into both houses of Congress, according to an announcement from the National Turkey Federation.

Officers and representatives of the federation recently held a final planning conference in Chicago on the proposed act.

Changes made in the proposed bill as previously published were minor, NTF officials said. The only major changes were additions in the wording to strengthen the bill and give greater assurance of its passage.

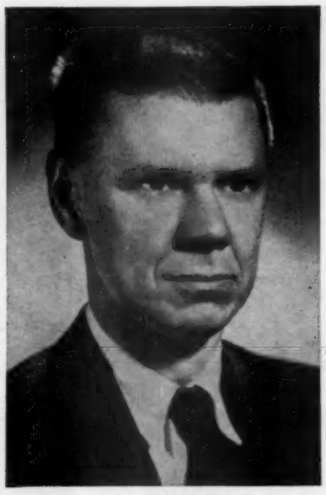
Questions and answers explaining the proposed legislation appear on page 66 of Feedstuffs, and "Capital Comment" on the proposal is on page 54.

The final draft of the bill is now ready and has been submitted for introduction. NTF said farm leaders in Washington believe the enabling act has a fair chance of passage. This, it was said, is in contrast to other poultry bills being proposed this year.

The federation said: "Reasons the NTF plan may go through Congress this year are: (1) It does not involve price supports and production control with allotments, which are the controversial features of other proposals. (2) It is a self-help plan that would not require extra government appropriations with the possible exception of small administrative costs to carry out referendums and put the program into action."

Because of his experience with the type of program under consideration, both in California and in connection with federal programs, W. J. Kuhrt, director of markets, California Department of Markets, Sacramento, was invited to attend the Chicago meeting as an advisor.

Other NTF representatives present at the Chicago meeting were Peter Crafts, president, Grasmere, N.H.; Trevor L. Jones, immediate past president, Springfield, Ill.; J. Arza Adams, past president, Pleasant Grove, Utah; Robert McPherrin, executive committee member, Riverside, Cal., and M. C. Small, executive secretary, Mt. Morris, Ill.



Dr. H. R. Bird

Dr. R. R. Spitzer

FROM FEED TO FOOD—A part of the 50th anniversary convention of the American Feed Manufacturers Assn. in Chicago May 21-23 will be a demonstration, "From Feed to Food," presented by six livestock and poultry demonstration teams under the direction of Dr. L. A. Wilhelm, Quaker Oats Co., Chicago. The team dealing with laying hens will be Dr. H. R. Bird, University of Wisconsin, and Dr. R. R. Spitzer, Murphy Products Co., Burlington, Wis. Other demonstrations will be given on beef and sheep, dairy cattle, turkeys, swine and broilers. The demonstrations will show 50 years of progress in production of meat, milk and eggs, as well as the distribution and availability of these protein foods.

AFMA DIRECTORS

(Continued from page 1)

viously he was with Honeggers' & Co., Fairbury, Ill., and Columbia Chemical Co., Columbia, Ga. He is a director of the Georgia Feed Assn. and serves on the advisory board of the National Broiler Council.

C. Grattan Lindsey, Jr., president of Lindsey-Robinson & Co., joined the company in 1939 as assistant to the president, became manager of the feed department in 1940, executive vice president and general manager in 1942, and his present position in 1943. He is a director of the Virginia Feed Assn. and past president of several state industry associations.

Henry C. Tilford, Jr., is secretary-treasurer of the Dixie Grain Co., a position he has held for the past 19 years. He is vice president of the Southeastern Poultry & Egg Assn. and a director on the board of the National Broiler Council.

Edward E. Woolman, vice president of Hales & Hunter Co., started with the firm 20 years ago as a salesman. Successive advancements elevated him to positions as personnel director, assistant to the general manager, and assistant general manager, before being named vice president.

Steele Wright, president and general manager, Texas Farm Products Co., helped start the firm with his father in 1930, and first worked as a salesman. It has grown from 20 employees to over 400 and Mr. Wright has worked as plant superintendent and vice president. He has served as a director and chairman of the legislative committee of the Texas Feed Manufacturers Assn. and a director of the Texas Grain & Feed Dealers Assn.

B. D. Eddie, president and general manager of Superior Feed Mills, Oklahoma City, grew up in the feed business founded by his father in 1908, and has been active in the operation of their plant since 1920. He is a past president of the Oklahoma Feed Manufacturers Assn.

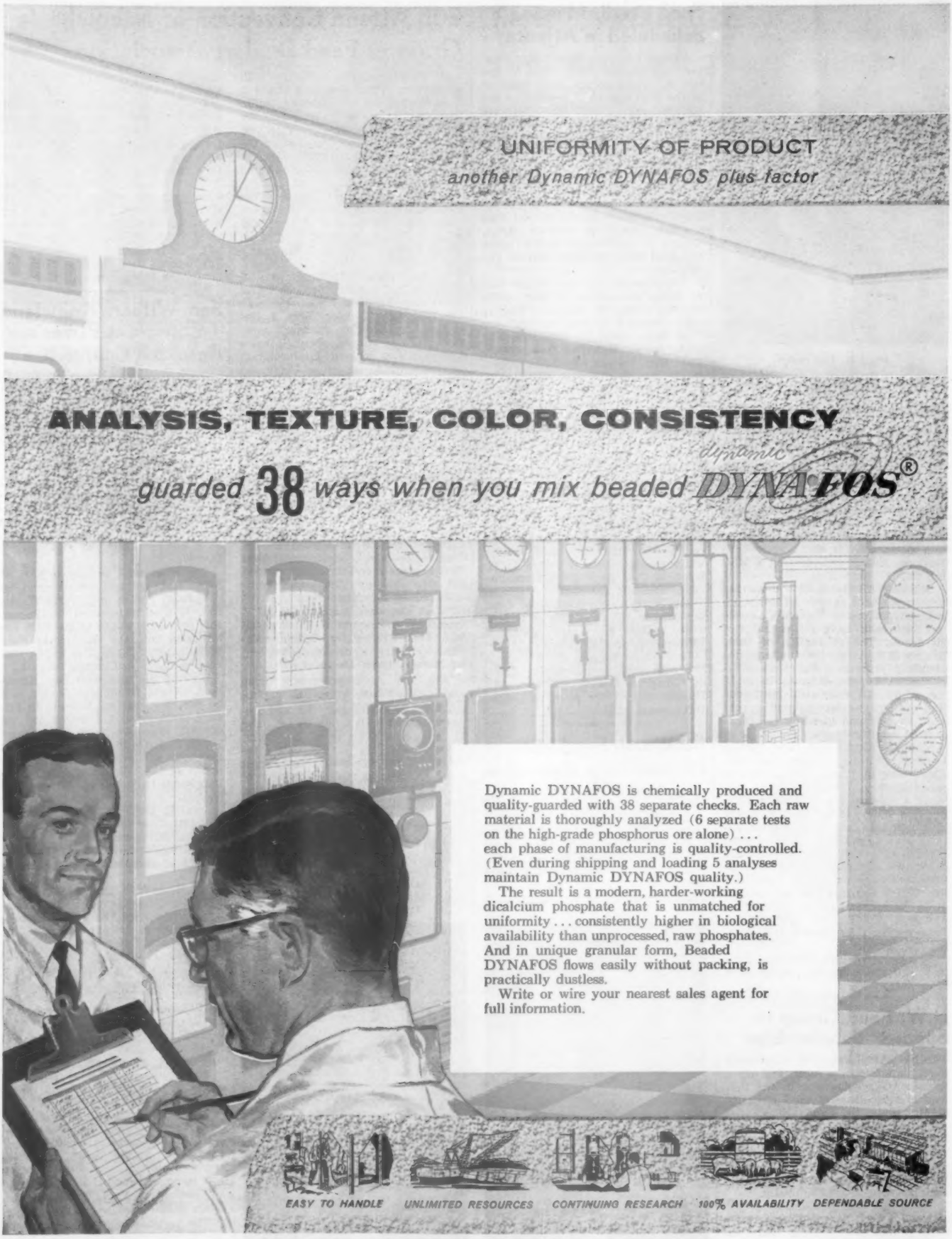
John B. Eshelman, vice president, John W. Eshelman & Sons, and a great-grandson of the founder of the company, joined the firm in 1945, serving in several capacities in domestic and export sales, production and advertising at their mills in York, Pa.; Sanford, N.C., and Lancaster, Pa. In 1951 he was elected vice president.

E. D. Griffin, vice president and general sales manager, Allied Mills, Inc., has been with the company since 1926. Formerly, he was extension poultryman for Purdue University. For the past decade he has been active in AFMA affairs, serving as chairman of the advisory committee to the agricultural service division, the public relations committee, the convention program committee and several other groups.

J. D. Sykes, vice president in charge of public relations, Ralston Purina Co., has been with the firm since 1941. Formerly, he served as poultry coordinator of the U.S. Department of Agriculture. Mr. Sykes served as chairman of the AFMA board of directors from 1952 to 1954, was chairman of the advisory committee to the agricultural service division for four years and served on many other AFMA committees. He is a member of the feed industry advisory committee of USDA, feed industry committee to the Poultry & Egg National Board and was a U.S. representative to the council of the World's Poultry Science Assn.

Everett W. Turner, president of the Grange Co., has been with the firm 43 years and has held "all positions" during that time. Mr. Turner has been very active in West Coast feed and poultry association work. He has been active in helping develop the market of broilers and other poultry products in West Germany and other western European countries.

JOHN F. YOUNG COMPANY
3270 Southside
Cincinnati 4, Ohio
WAbash 1-1950
We are Distributors of
International Minerals' DYNAFOS


UNIFORMITY OF PRODUCT
another Dynamic DYNAFOS plus factor
ANALYSIS, TEXTURE, COLOR, CONSISTENCY
guarded 38 ways when you mix beaded dynamic DYNAFOS®
Dynamic DYNAFOS is chemically produced and quality-guarded with 38 separate checks. Each raw material is thoroughly analyzed (6 separate tests on the high-grade phosphorus ore alone) ... each phase of manufacturing is quality-controlled. (Even during shipping and loading 5 analyses maintain Dynamic DYNAFOS quality.)
The result is a modern, harder-working dicalcium phosphate that is unmatched for uniformity ... consistently higher in biological availability than unprocessed, raw phosphates. And in unique granular form, Beaded DYNAFOS flows easily without packing, is practically dustless.
Write or wire your nearest sales agent for full information.
EASY TO HANDLE
UNLIMITED RESOURCES
CONTINUING RESEARCH
100% AVAILABILITY
DEPENDABLE SOURCE

INTERNATIONAL MINERALS *International* **& CHEMICAL CORPORATION**

PHOSPHATE CHEMICALS DIVISION .... 20 N. WACKER DRIVE, CHICAGO 6, ILL.

Sales Agents: **EASTERN AREA:** GRANDONE, INC., Needham (Mass.) • SUNSET FEED & GRAIN CO., INC., Buffalo • P. R. MARKLEY, INC., Philadelphia • A. G. GREENE COMPANY, Charlotte (N. Carolina) • EDWARD E. SMITH COMPANY, Atlanta • E. A. CARTER BROKERAGE COMPANY, Tampa **CENTRAL AREA:** BULLARD FEED COMPANY, Chicago • GOOD LIFE CHEMICALS, INC., Effingham (Ill.) • JOHN F. YOUNG COMPANY, Cincinnati • R. D. ERWIN COMPANY, Nashville • CHAS. F. WILLEN CO., INC., Birmingham (Ala.) • STANDARD SALES COMPANY, Meridian (Miss.) • THE VITA PLUS CORPORATION, Madison (Wis.) • **MIDWEST AREA:** BLOMFIELD-SWANSON, Minneapolis • MERCHANTS CHEMICAL COMPANY, INC., Omaha • M. A. McCLELLAND COMPANY, Kansas City (Mo.) • B. A. LUCIUS COMPANY, Fort Worth • **WEST COAST:** JAMES FARRELL & COMPANY, Seattle • JAMES FARRELL & COMPANY, Compton (Calif.) • **CANADA:** N. D. HOGG LTD., Toronto

Ford K. Patterson

Dehy Marketing Firm Names Sales Manager

KANSAS CITY — Midwest Alfalfa, Inc., newly-organized dehydrated alfalfa marketing firm, has announced the appointment of Ford K. Patterson as sales manager with offices in the Centennial Building, Kansas City.

Mr. Patterson formerly was sales manager of Consolidated Blenders, Inc., Fremont, Neb., and previously was associated for many years with National Alfalfa Dehydrating & Milling Co.

Midwest Alfalfa, Inc., will market the output of a number of independent dehydrators in Kansas, Colorado and Nebraska, having a capacity of 30 drums. The production of these firms will be handled through central blending, processing and storage facilities at Topeka, Kansas. In total, the group will have available 35,000 tons of inert gas storage, making possible year-around blending to standardized quality levels.

Midwest Alfalfa has been formed by the following independent producers, all in Kansas except where noted: Abilene Alfalfa Sales Co., Abilene; Arkansas Valley Alfalfa Milling Co., Wiley, Colo.; Bert & Wetta Sales, Inc., Maize; Clay Center Alfalfa Mill, Clay Center; L. E. Chamberlain Co., Oxford; Jones Alfalfa Milling Co., Topeka; Noria Dehydrating Co., Lawrence; Oxford Dehydrating Co., Oxford; Peddicord Alfalfa Mills, Wamego; Reyher Milling Co., McClave, Colo; R-W Milling Co., Wamego, and Thompson Dehydrating Co., Topeka.

It is expected that additional firms may join the marketing group at a later date.

N.W. Feed Group to Sponsor Scholarships

MINNEAPOLIS — The Northwest Feed Manufacturers Assn. will again sponsor six scholarships in the College of Agriculture of the University of Minnesota, St. Paul.

The association's board of directors recently authorized a contribution of $1,800 to the university for scholarships for the 1958-59 college year. The association has been making this contribution annually.

The $1,800 will provide six scholarships of $300 each for undergraduate students in animal, dairy or poultry husbandry.

Dr. Frank Crane, Land O' Lakes Creameries, Inc., is chairman of the scholarship fund committee, which recommended continuation of the scholarship program.

The association board also authorized a contribution of $300 for continuation in 1958-59 of the Yantis Memorial Scholarship in agricultural journalism at the University of Minnesota. This scholarship, first established in 1957-58, is in memory of the late Harvey E. Yantis, who was editor of Feedstuffs until his death in 1957.

Feed Credit Meeting Scheduled in Atlanta

ATLANTA, GA.—Five sales managers will present their views on the role of credit in the feed industry at the next quarterly meeting of the Southeastern Feed Manufacturers Credit Group. The group will meet at the Henry Grady Hotel, Atlanta, at 9:30 a.m., June 20.

Moderating the panel will be H. A. Glazner, district sales manager of McMillen Feed Mills. Other sales managers on the panel are W. T. Ellington, Earle Chesterfield Co.; Earl Mitchell, Alabama Flour Mills; George P. McCarthy, Allied Mills, Inc., and H. B. Morris, Ralston Purina Co.

The program will also include other group discussions of feed credit matters during the afternoon session.

Co-chairmen of this meeting are Paul Sams, southern division credit manager of McMillen Feed Mills, and Don Burson, southern region credit manager of Allied Mills, Inc. According to Mr. Burson, credit men from all feed manufacturing companies operating in the Southeast are invited to attend.

Charles C. Ruth Dies At Hillsboro, Ore.

PORTLAND, ORE. — Charles C. Ruth, past president of the Oregon Feed & Seed Dealers Assn., died recently. He suffered a heart attack while fishing. He was active in his business, C. C. Ruth & Co., Cornelius, Ore., until his death.

Mr. Ruth was a native of Ohio, obtained his M. S. degree at Oregon State College and taught classes in farm crops for nine years.

In 1932 he formed C. C. Ruth & Co. with feed manufacturing plants at Cornelius, Gaston and Roy, Ore. He disposed of the plant at Gaston three years ago.

Ft. Worth Feed Mill Discontinues Operation

FT. WORTH—The H. T. Bibb Co., Inc., has closed its feed processing mill and liquidated its stock of merchandise, according to H. T. Bibb.

Mr. Bibb plans to continue in his own name as dealer of carlot distribution of cottonseed and soybean meal.

600 Attend Convention of Nebraska Grain & Feed Dealers Association

LINCOLN, NEB. — At the 30th convention of the Nebraska Grain & Feed Dealers Assn., attended by more than 600 dealers recently at Lincoln, Ross Magowan, Magowan Grain Co., Gordon, was elected president of the organization. Robert Bridge, Norfolk Cereal & Flour Mills, was elected vice president.

Newly-elected board members are E. F. Ham, Independent Elevators, Inc., Benkelman; Don Huck, Ace Fuel & Grain, Norfolk, and Earl May, Farmers Union Cooperative Co., Hooper.

A panel discussion of aeration, fumigation and temperature control of grain was included in the program the first day. George Rolfes, Rolfes Grain Aeration Co., discussed aeration; Lester Christopher, Douglas Chemical Co., presented information on fumigation, and Roy Hefti explained temperature control.

Sam D. Fine, chief of the Kansas City district of the Food and Drug Administration, explained the procedure followed in the seizure of grain, alternatives in case of seizure and general information in relation to the activity of the FDA.

Raymond Pollock, director of the grain division of the Commodity Stabilization Service, gave the background of the people forming the U.S. Department of Agriculture, including his deputy up through Ezra Taft Benson, secretary of agriculture. He also explained the policy being followed by his department.

What the situation of the U. S. would be in event of World War III was discussed by Dr. William McGovern, political science department at Northwestern University.

The first day's program, "Grain Day," closed with a cocktail party.

On the following day, the feed program opened with a talk by Dr. John L. Adams, University of Nebraska, who reported the latest poultry research at the university. Dr. Ernest Peo, Jr., also of the University of Nebraska, discussed swine breeding and feeding, litter sizes, rates of gain, etc. Another university staff man, Dr. John Matsushima, summarized the work using stilbestrol and antibiotics over the past few years in cattle feeding.

Dr. James Drain, American Cyanamid Co., New York, related the results obtained through the use of various feed additives.

The last speaker was Joseph Burger, for 14 years sales manager for Ralston Purina Co. Mr. Burger made the point that character, not personality, as many people believe, is the first quality of a good salesman.

After character, said Mr. Burger, come industry, ability, courage and then personality. The fact that work is paramount in selling was emphasized. "You must see the people to sell," he pointed out.

The convention closed with the annual fried chicken stag dinner.

Sen. William Knowland To Speak at Pfizer's Research Conference

NEW YORK — Sen. William F. Knowland of California will be guest speaker at a luncheon to be held May 20 in connection with the sixth annual Research Conference sponsored by Chas. Pfizer & Co., Inc., New York.

Hugh O. Dermody, assistant general manager of Pfizer's agricultural division, has announced that the Senate GOP leader will address representatives of the feed manufacturing industry, scientists and other guests at a luncheon meeting in Chicago's Morrison Hotel.

The conference usually is held at Pfizer's agricultural research and development center near Terre Haute, Ind. It was transferred to Chicago this year as a salute to the 50th anniversary of the American Feed Manufacturers Assn. The AFMA convention opens in Chicago May 21.

Sharing the spot with Sen. Knowland, Senate Republican leader, will be the four regional winners in Pfizer's sixth annual livestock judging contest, which was open to any farm youth 18 years of age or under. Mr. Dermody will present $1,000 savings bonds to the winners and $500 savings bonds to their adult agricultural leaders.

John E. McKeen, Pfizer president, will introduce the guest speaker. J. Jerome Thompson, general manager of the agricultural division, will be master of ceremonies at the luncheon.

Dr. Herbert G. Luther, director of agricultural research for the company, announced that the following scientists will present papers at the conference:

Dr. G. F. Combs, University of Maryland, poultry nutrition; Dr. T. J. Cunha, University of Florida, swine nutrition; Dr. R. P. Link, University of Illinois, veterinary research; Dr. L. S. Pope, Oklahoma State University, beef nutrition, and Dr. A. T. Phillipson, Rowett Research Institute, Scotland, rumen research.

Pfizer scientists will join this group in reviewing important developments over the past year in animal and poultry nutrition and veterinary research. They will report also on some of the more interesting work being done at the Terre Haute research center.

A large segment of the press, radio and television, both farm and nonfarm, is being invited to the conference.

Currently Sen. Knowland is serving on the Congressional Joint Committee on Atomic Energy and on the Senate Appropriations and Foreign Relations committees. In addition, he is a member of the Republican Policy Committee for the Senate.

Harold A. Swanson

R. T. Whelan

NOPCO APPOINTMENTS—Nopco Chemical Co., Harrison, N.J., has elected Harold A. Swanson, vice president, to its board of directors. The firm also announced the appointment of R. T. Whelan as sales manager of the new agricultural sales division in the Midwest, with headquarters in Kansas City. Mr. Swanson is in charge of sales and laboratories of the firm's industrial and fine chemicals divisions. He holds chemical engineering and law degrees from Northwestern and George Washington universities. He has been with Nopco for 21 years. Mr. Whelan's appointment was announced by Dr. Melvin Hochberg, vice president of the fine chemicals division. The sales division in Kansas City will function in coordination with the new Nopco plant in Peoria, Ill., providing added facilities for its line of feed supplements. Mr. Whelan has been with the company since 1936.

CORPORATION FORMED

DOVER, DEL. — Fox Poultry Co., Inc., has filed a charter of incorporation with the corporation department of the secretary of state's office. Authorized capital stock of the firm is 1,000 shares, no par value. Robert W. Tunnell, Georgetown, Del., is serving as the resident agent.

$100 CHICKEN DINNER—Delmarva Poultry Industry, Inc., recently raised $123,000 for poultry promotion at a $100-a-plate banquet dinner. Three of the participants were (left to right) E. Bowen Quillin, Berlin, Md., feed manufacturer and broiler grower; Mrs. Webb Cassell, Salisbury, Md., wife of the organization's secretary, and Louis Shockley, Whiton, Md., feed dealer and broiler grower.

$123,000 Raised for Poultry Promotion At Delmarva Dinner

SALISBURY, MD.—A chicken dinner banquet at $100 a plate raised slightly more than $123,000 for the Delmarva Poultry Industry, Inc., recently at Salisbury.

This was the fourth, and most successful, $100-a-plate dinner sponsored by the group. Last year the affair brought in $100,291, and the two before that brought in $88,036 and $30,000.

The money will be used to promote the $125 million industry in the tri-state area. Part of the money will go to the Poultry & Egg National Board for consumer promotion of poultry. The remainder will be spent on the Delmarva Chicken Festival, booths and displays at food trade shows, co-operation with poultry promotions in newspapers, magazines, radio and television and in promoting good will for the industry.

This year's fund drive, headed by Ed McCauley, Seaford, had 1,820 contributors. Topping the list was a $15,000 contribution by the Eastern Shore Poultry Growers Exchange, Selbyville. There were 18 firms that each gave $1,000 or more.

There were 679 broiler growers who contributed a total of $6,108, representing $1 per 1,000 birds on their farms. Employees of 21 companies contributed. In most cases there was 100% participation by employees.

In comparison to 1957, this year's dinner had twice as many contributors, and there were 2½ times as many broiler growers taking part.

In his welcoming address, John Hargreaves, president of Delmarva Poultry Industry, Inc., said: "No business in U.S. agriculture can match the progress and growth of the broiler industry. For each chicken raised in 1934, there are 42 being raised today. We have just started growing out of the short pants stage."

The organization got its start 11 years ago with a "Chicken of Tomorrow" contest held in Easton and Georgetown. Since then it has grown into a year-around promotion organization.

One of its major contributions to the broiler growers is the annual national chicken cooking contests for junior and senior cooks. This is held during the Delmarva Chicken Festival. The purpose of the contests is to get nearly 200 new recipes each year. These recipes are distributed to housewives throughout the nation to encourage them to buy Delmarva chickens.

Pig Auction Planned In Southern Illinois

URBANA, ILL. — The Egyptian Livestock Assn., which annually sponsors a feeder calf sale at the University of Illinois Dixon Springs Experiment Station, has branched out to serve the hog growers in the area.

The association will hold a feeder pig sale at the station May 15, 1 p.m. For this first sale the association is offering about 650 head of vaccinated and wormed pigs to be auctioned in graded lots according to type, breed and size.

An association spokesman said both buyers and spectators are invited to this "kick-off" sale.

Broadcast from Barn

NEW YORK — CBS Radio's Galen Drake Show will broadcast May 17 from the loft of a barn at the Terre Haute, Ind., agricultural research and development center of Chas. Pfizer & Co., Inc., New York.

Mr. Drake's full cast will be transported to the center in Pfizer planes. The barn loft is being fitted with a stage and seats to accommodate an audience of 500 persons from the Terre Haute area. (The barn is a quarter of a mile long.)

Dr. Herbert G. Luther, director of the center, will participate in the show.

New Legislation May Signal End of High Price Supports

By JOHN CIPPERLY
Feedstuffs Washington Correspondent

WASHINGTON—There were further indications this week that the high price support "Maginot Line" here is crumbling. The cotton industry—the elite of the high price support troops—is quietly folding its tent and sneaking away. The action contains urgently important connotations on price levels for wheat and the feed grain crops.

Cotton legislation likely to be introduced shortly at this session of Congress, and likely to be approved, will mean lower prices and larger production by way of a new price support level for the crop at between 65 and 70% of parity and a new acreage base for cotton of 14 million acres. This legislation represents the consensus of opinion of all segments of the cotton industry from the producers down through the textile manufacturing industry. It will not represent what all these diverse interests want, but it represents about all they can obtain—a realization brought home to them after a prolonged period of fighting over special interests within that industry.

The lower prices which will be the ultimate result of this legislation will be accomplished through much lower levels of price support and expanded cotton acreage for the 1959-60-61 crop years.

It is understood that the cotton legislation around which the industry has formed its support plus U.S. Department of Agriculture agreement will represent a price support level for the crop at 65-70% of parity and a new acreage base for cotton of 14 million acres. At the same time the cotton producers will be permitted to exceed the basic acreage by 30%, meaning potentially a cotton acreage of 18.2 million.

This measure, if introduced, is certain to be enacted. Among other things it would accomplish would be the ending of the flexible sliding scale schedule of price support which adjusts the annual price support level to the imbalance of supply and demand. In short, it would mean that heavy reduction of a surplus would not force on USDA higher and higher levels of support.

The unwritten connotation of this probable action for cotton is the handwriting on the wall for wheat and other crops which have been sheltered under the rigid high price support program and acreage allotment restraints.

It can only mean that when the

(Turn to LEGISLATION, page 86)

Date Changed for Twin City Nutrition Seminar

ST. PAUL—The date of the Twin City Nutrition Seminar this month has been changed to May 13 due to conflict with the American Feed Manufacturers Assn. convention May 21-23, according to Dr. J. Wesley Nelson, Cargill, Inc., secretary.

The program will include talks by Harley Hanke, University of Minnesota West Central Experiment Station, on lamb feeding research at the station. Dr. W. E. Petersen and Dr. R. J. Meade, both of the University of Minnesota, will discuss dairy feeding and swine feeding, respectively.

The meeting will begin at 7:30 p.m. at Peters Hall, St. Paul campus, University of Minnesota. Dr. E. L. Johnson will be chairman.

Fleischmann's F·I·D·Y
IRRADIATED DRY YEAST
RICH IN VITAMIN D FOR FOUR-FOOTED ANIMALS

MANEY BROS. MILL & ELEV. CO.
Minneapolis, Minnesota
Distributors in the Upper Midwest States for
SMALL'S DEHYDRATED ALFALFA MEAL

SW
FOR THE BEST IN
GRADERS
SPROUT-WALDRON
MUNCY, PENNA.

Fruen's Minneapolis Minn.
MIXERS' PULVERIZED OATS
A competitively priced grade that has a record for improving the quality of mixed feeds. Mixers' Pulverized Oats is also available in pelleted form.
Ask for samples and delivered prices.
Mixed cars shipped at straight car prices
Our Teletype Number is MP 477

TOWER BRAND ROLLED OATS (Steam processed)
ACE BRAND ROLLED OATS (Steam processed)
KING BRAND ROLLED OATS (Steam processed)
WHOLE OAT GROATS
STEEL CUT OAT GROATS
BOLTED OAT FLOUR
GLENWOOD FEEDING OAT MEAL
FALCON BRAND PULVERIZED WHITE OATS
STANDARD BRAND PULVERIZED WHITE OATS
DAIRY BRAND COARSE GROUND OATS
CRESCENT BRAND PULVERIZED OATS
CORN OATS PELLETS (Corn-Oats)
MIXERS' PULVERIZED OATS
MIXERS' COARSE GROUND WHITE OATS
MIXERS' PELLETED OATS
APEX BRAND CRIMPED WHITE OATS
OAT FEED
STEAM ROLLED WHOLE BARLEY
GROUND BARLEY
PEARLED BARLEY FLAKES (Max. 2½% fiber) (steam processed)
GLENWOOD PEARLED BARLEY
STAR CRACKED PEARLED BARLEY
STEEL CUT WHEAT
ACME GROUND DOMESTIC FLAX SCREENINGS
Millers TO THE FEED TRADE
FRUEN MILLING COMPANY
MINNEAPOLIS 5, MINNESOTA

USDA Feed Grain Export Program Regulation

TITLE 6—AGRICULTURAL CREDIT
CHAPTER IV—COMMODITY STABILIZATION SERVICE AND COMMODITY CREDIT CORPORATION
DEPARTMENT OF AGRICULTURE

SUBCHAPTER C—EXPORT PROGRAMS
PART 484—FEED GRAINS
SUBPART—FEED GRAIN EXPORT PROGRAM
PAYMENT IN KIND (GR-368)
TERMS AND CONDITIONS
AUTHORITY

Secs. 484.101 to 484.154 issued under Sec. 5, 62 Stat. 1072; 15 USC 714c. Interpret or apply Sec. 407, 63 Stat. 1051, as amended; Sec. 201 (a), 70 Stat. 188; 7 USC 1427, 1851.

GENERAL

484.101. General Statement

Commodity Credit Corporation (referred to in this subpart as "CCC") will conduct an export program pursuant to the following terms and conditions (referred to in this subpart as the "program") under which an exporter may agree to export feed grain, as defined in section 484.153, and may apply for an export payment in the form of a certificate which is redeemable in feed grains owned by CCC. The program is designed to encourage the exportation through normal trade channels of surplus feed grains held in private inventories and in CCC stocks in order (a) to aid the price support program by strengthening the domestic market price to producers, (b) to reduce the quantity of feed grains which would otherwise be taken into CCC's stocks under its price support programs, (c) to promote the orderly liquidation of CCC stocks, and (d) to maintain and expand the market in friendly countries for United States produced feed grains. The program will be administered by Commodity Stabilization Service, United States Department of Agriculture (referred to in this subpart as CSS). Information pertaining to the program may be obtained from any CSS Commodity Office listed in section 484.140.

REQUIREMENTS FOR PARTICIPATION

484.105. General Provisions

(a) Persons desiring to participate in this program shall submit offers as provided in section 484.106 for the exportation of feed grains during a specified period at a stated export payment rate. CCC will consider and accept offers on a competitive basis. Export payments under this program will be made on the basis of the net quantity, excluding dockage, of the feed grains exported.

(b) Feed grains exported under this program must have been produced in the United States.

(c) Feed grains shall be exported under this program only to an eligible country and the feed grains so exported shall not be transshipped or caused to be transshipped by the exporter to any country other than an eligible country.

(d) To be eligible for payment under this program, the exporter shall furnish documentary evidence of export, as required in section 484.116, which has not been used, or will not subsequently be used as evidence of export in connection with any other contract entered into pursuant to section 484.107 of this program or in connection with any other export program under which CCC has paid or has agreed to pay an export allowance, or in connection with any other export program which involves the sale of feed grains for export at prices which reflect any export allowance. Nothing herein shall be construed as precluding exportations of feed grain under this program from fulfilling sales under Purchase Authorizations pursuant to Public Law 480, 83rd Congress. Documentary evidence of export submitted under section 484.127 in connection with purchases of feed grains from CCC may also be submitted to CCC as evidence of export in connection with Applications for Feed Grain Export Payments.

(d) Exportations of feed grain under this program shall be started and completed in one of three periods as specified in the offer submitted by the exporter. The three periods of export shall be (1) The period beginning with the date of the opening of the offer and ending the last day of the next succeeding calendar month, (2) the two calendar months next succeeding the last day of the period described in subparagraph (1), and (3) the two calendar months next succeeding the last day of the period described in subparagraph (2).

484.106. Submission of Offers.

(a) **Place and Time.** Exporters desiring to participate in this program shall submit offers in writing, by letter, telegram, TWX, or the tele-typewriter to:

Director, Grain Division, CSS
3090 South Building
U.S. Department of Agriculture
Washington 25, D.C.
TWX-WA 595

Such offers must be received in the Department of Agriculture by 3:30 P.M. (E.S.T. or E.D.T., whichever is in effect) of the day on which the exporter desires the offer to be opened, i.e. considered by CCC for acceptance. Offers to export corn will be considered for acceptance beginning Monday, May 12, 1958. Offers to export barley, grain sorghums, oats, and rye will be considered for acceptance beginning Tuesday, July 1, 1958. Offers will be considered daily subsequent to the foregoing respective dates, except that offers will not be considered for any Saturday, National Holiday or day upon which the major grain exchanges are closed, unless public announcement by CCC provides otherwise.

(b) **Form.** All offers must be signed by the exporter or his authorized agent and shall specifically state the following:

(i) The offer is subject to all of the terms and conditions of this subpart, and any amendments effective at the time the offer is submitted. The use of the term "GR-368" in the offer shall signify that it is submitted subject to all such terms and conditions.

(ii) The date for which the offer is submitted for opening (Note: This date must show on the offer and may also appear in the lower left hand corner of the envelope in which written offers are submitted.) An offer will be considered for acceptance only on the day specified and will not be considered on any other day unless the offer is resubmitted.

(iii) The specific feed grain to which the offer applies, i.e. "Corn," "Barley," "Grain Sorghums," "Oats," or "Rye."

(iv) The net quantity of feed grain to be exported. Grain sorghums shall be expressed in hundredweights and other feed grains in bushels.

(v) The export payment expressed in whole cents per bushel (or cwt.) for which the feed grain will be exported.

(vi) The area—(Atlantic/Gulf, Pacific, or a named Border point) from which export will be made.

(vii) The period during which export will be started and completed, which shall be one of the three periods described in section 484.105(d).

(viii) The name and address of the offerer. (Example: The following represents an offer to export 100,000 bushels of corn from the Atlantic/Gulf area during July and August for an export payment of 10 cents per bushel submitted by John Doe Export Company.

GR-368 Corn—Open May 8
100,000 bushels Atlantic/Gulf
July-August, 10 cents bushel
Signed: John Doe Export Company
By: Richard Roe, President
400 Blank Street
New York, New York)

(c) An offer shall not specify more than one kind of feed grain, one quantity of feed grain, one export rate, and one export period. An exporter may separately submit more than one offer for opening on any stated date. CCC reserves the right to accept or reject any or all offers or to waive any informality in connection with such offers. Offers will be considered in their entirety only, and offers containing conditions other than those authorized in this subpart will not be considered.

484.107. Acceptance by CCC

In the event CCC accepts an exporter's offer CCC will attempt to notify the exporter by telephone by 4:30 P.M. (E.S.T. or E.D.T. whichever is in effect) of the day on which the exporter desires the offer to be opened, and by the close of business of such day will forward to the exporter CCC Form 399 "Acceptance of Offer to Export," which shall constitute CCC's written acceptance of exporter's offer. The contract resulting from such acceptance shall consist of the exporter's offer, CCC's written acceptance, the terms and conditions of this subpart and any amendments in effect on the date of submission of the offer.

484.108. Exportation Requirements

(a) The exporter shall export or cause exportation of the feed grain to an eligible country in accordance with his contract with CCC and within the period of time specified therein. Exportation in a different period or from a different area than the area specified in the contract will be acceptable only if approved in writing by the Vice President, CCC, before or after such exportation, subject to such reduction in the export payment expressed in a rate per bushel or hundredweight) as may be specified by such Vice President.

(b) The exporter shall promptly furnish to CCC evidence of exportation as specified in section 484.116 hereof. Failure to furnish evidence of exportation within 214 calendar days from the date of CCC's acceptance of the exporter's offer or within 30 calendar days from the last date of any extension in time for exportation approved by the Vice President pursuant to paragraph (a) above, whichever is later, shall constitute prima facie evidence of failure to export.

(c) Failure of the exporter to export in accordance with the provisions of his contract with CCC shall constitute a default of his obligations to CCC. Exportation to an eligible country, and from the area and within the period of time specified in the exporter's contract with CCC or approved by the Vice President, CCC, are of the essence of the contract and are conditions precedent to any right to payment under this program. Exportation to an ineligible country, or during a period of time or from an area other than that specified in the exporter's contract with CCC or approved in writing by the Vice President, CCC, as provided in subparagraph (a) of this section, shall not entitle the exporter to any payment under this subpart. Moreover, if the exporter does not export the quantity of feed grain specified in the exporter's contract with CCC, such breach shall give rise to liquidated damages. Inasmuch as failure of the exporter to export will cause serious and substantial losses to CCC, such as damages to CCC's export and price support programs, and the incurrence of storage, administrative and other costs, and it will be difficult, if not impossible, to prove the exact amount of such damages, the exporter shall pay to CCC liquidated damages promptly upon demand for each bushel or hundredweight of such grain not so exported at the following applicable rates:

Oats	20 cents per bushel
Barley	20 cents per bushel
Corn	25 cents per bushel
Grain Sorghums	40 cents per hundredweight
Rye	20 cents per bushel

The foregoing rates are agreed by the exporter and CCC to be a reasonable estimate of the probable actual damages that would be incurred by CCC. For the purposes of assessing liquidated damages, an exportation which has not been made within 184 calendar days after the date of CCC's acceptance of the exporter's offer or which has not been made by the last date of any extension in time for exportation approved in writing by the Vice President, CCC, whichever date is the later, shall be deemed not to have been made at all. In addition to the foregoing, an exporter may be denied the right to continue participating in this program for his failure to export in accordance with the provisions of his contract with CCC.

(d) If any quantity of feed grains exported pursuant to the exporter's contract with CCC is reentered into the United States, including Alaska, Hawaii, or Puerto Rico, whether or not such reentry is caused by the exporter, or if any feed grain exported is transshipped or caused to be transshipped by the exporter to any country excluded by section 484.150, the exporter shall be in default, shall refund any payment made by CCC, and with respect to any feed grain reentered into the United States, shall pay to CCC the liquidated damages specified in paragraph (c) of this section. The exporter shall not be subject to such damages if he establishes to the satisfaction of CCC that (1) the reentry resulted from causes beyond his control and without his fault or negligence and promptly after he received notice of reentry he exported the feed grains required to be exported under his contract with CCC to an eligible country, or (2) the feed grains reentered were lost, damaged or destroyed and the physical condition in such that their reentry into the United States will not impair CCC's price support program.

FEED GRAIN EXPORT PAYMENT CERTIFICATE

484.115. Application for Feed Grain Export Payment.

An original and two (2) copies of Application for Feed Grain Export Payment, CCC Form 397, must be prepared and submitted together with the evidence of export, as provided in section 484.116, to the CSS Commodity Office shown on the acceptance of the exporter's offer. Supplies of CCC Form 397 and detailed instructions regarding the preparation and submission of the form may be obtained from the CSS Commodity Offices in Dallas, Evanston (Illinois), Kansas City (Missouri), Minneapolis, and Portland (Oregon).

484.116. Documents Required as Evidence of Export.

(a) Each application for Feed Grain Export Payment (CCC Form 397) must be supported by the following documents as applicable.

(1) If export is by water, a nonnegotiable copy of the applicable on-board ship ocean bill of lading signed by an agent of the ocean carrier, which shows the weight of the feed grain, the name of the vessel, and that the feed grain is destined to an eligible country. In the case of bagged feed grain an ocean bill of lading showing the gross weight of the feed grain and the number of bags may be furnished, provided the ocean bill of lading also shows the weight of the bags or the exporter furnishes an acceptable certification as to the weight of the bags. Where loss, destruction or damage to the feed grain occurs subsequent to loading aboard the ocean carrier but prior to issuance of on-board ship bill of lading, one copy of a loading tally sheet or acceptable similar document may be substituted for the ocean bill of lading.

(2) If export is by rail or truck, and not under Public Law 480, 83rd Congress, one copy of Shipper's Export Declaration, authenticated by the appropriate United States Customs official, which identifies the shipment(s), the date of clearance into the foreign country and the weight of the feed grain, or if bagged, the weight of the feed grain less the weight of the bags. If export is under Public Law 480, 83rd Congress, one unauthenticated copy of Shipper's Export Declaration (or photostat of an unauthenticated copy) which shall bear a statement certified by the exporter that "the unauthenticated copy of this Shipper's Export Declaration was forwarded to (name of banking institution) with my draft for financing of this shipment under P. A. No. ....."

(3) One copy of an Export Grain Inspection certificate issued by an inspector licensed under the United States Grain Standard Act.

(4) On bulk feed grain, a copy of the official loading weight certificate.

(5) Such additional proof of export as may be required by CCC.

(b) If the shipper or consignor named in the on-board bill(s) of lading or the Shipper's Export Declaration(s), is other than the exporter named in the offer to export, waiver by such shipper or consignor of any interest in the application for payment in favor of such exporter is required. Such waiver must clearly identify the on-board bill(s) of lading or Shipper's Export Declaration(s) submitted to evidence export.

(c) Where exportation of the feed grain has been made by anyone or transshipment made or caused by the exporter to one or more of the countries or areas identified in section 484.150 (b) (1), (2), and (3), the bills of lading or other pertinent documentary evidence required to be furnished to CCC shall identify the license by number issued by the Bureau of Foreign Commerce, U.S. Department of Commerce, for such movement. With respect to any such movement to Hong Kong not requiring a specified license, the required documentary evidence shall contain a statement by the exporter that a specific license was not required.

484.117. Description of Certificate.

Upon receipt of an Application for Feed Grain Export Payment (CCC Form 397) and satisfactory evidence of export the CSS Commodity Office will determine the amount of payment due and issue to the exporter a Feed Grain Export Payment Certificate (CCC Form 398) hereinafter referred to as "certificate" for the amount due. Such certificate will be subject to the provisions contained therein and the applicable provisions of this subpart.

(a) **Payee.** Except as provided in 484.137, the certificate will be issued only to the exporter whose offer to export has been accepted by CCC.

(b) **Face Value.** The amount shown in the space provided for the face value of the certificate will be the amount obtained by multiplying the number of net bushels (or hundredweight) of feed grain exported in accordance with the exporter's contract with CCC by the agreed export payment rate. Certificates will be accepted by CCC at face value if applied to the purchase of feed grain under contracts with CCC entered into pursuant to this subpart which specify a date of sale by CCC not more than 60 days after the date of export shown on the certificate. If a certificate is applied to the purchase of feed grain under a contract with CCC, as provided in this subpart, which specifies a date of sale by CCC more than 60 days after the date of export shown on the certificate, the value at which the certificate will be accepted will be the face value reduced by 1/50 of one percent for each day beginning on the 61st day after such date of export and ending on the date of sale specified in the CCC contract to which it is applied.

(c) **Date of Export.** The date of export shown on the certificate will be the date of export as defined in 484.151.

(d) **General Provisions.** The certificate will be redeemable in feed grain which CCC makes available from its stocks for sale under this subpart. The certificate may be presented to the Evanston, Dallas, Kansas City, Minneapolis and Portland offices of CSS, as provided in section 484.140 for feed grain handled by the office to which submitted. The certificate may be transferred by endorsement subject to all terms and conditions contained in this section and in the sections beginning with 484.120 through the end of this subpart, applicable to the person or firm to whom it was originally issued.

REDEMPTION OF FEED GRAIN EXPORT PAYMENT CERTIFICATE

484.120. Offer to Purchase Feed Grain with Certificates.

(a) Offers to purchase CCC feed grain with certificates may be submitted by letter, telegram, or orally to any CSS Commodity Office from which the exporter desires delivery. The exporter must specify the kind of feed grain, class, grade, quality and quantity desired, and the desired port or border point of delivery. CCC reserves the right to determine the kind of feed grain, classes, grades, qualities and quantities and port or border point of delivery for which offers will be considered, and to reject any offer in whole or in part.

(b) If the feed grain purchased hereunder is to be exported under Title I, Public Law 480, 83rd Congress, the exporter shall advise CCC of that fact and of the number of the P. L. 480 Purchase Authorization in the offer if it is known at that time. If the number is not known at the time of the offer, it shall be furnished as soon as it becomes known to the purchaser. If there is any change in the information that has been submitted in reference to a P. L. 480 Purchase Authorization pursuant to this section, the purchaser shall immediately notify CCC.

484.121. Creation of Contracts.

Preliminary negotiations for purchase of feed grain under this subpart shall be confirmed by written Confirmation of Sale which shall be issued by the CSS Commodity Office in duplicate. One copy shall be signed and returned by the exporter whose offer to purchase feed grain is accepted by CCC. Such exporter is hereinafter called "the purchaser." Confirmation of Sale, together with the terms and conditions of this subpart, and any amendments in effect on the date of sale, shall constitute the sales contract. Any provision of prior negotiations not contained in the Confirmation of Sale shall be of no effect. The term "date of sale," as used herein, shall mean the date that the parties concluded their preliminary negotiations, and such date will be specified in the Confirmation of Sale.

484.122. Price.

The price shall be basis f.o.b. vessel, instore, or track at port or other point of export (without export allowance) as determined by CCC and shall be specified in the Confirmation of Sale.

484.123. Payment Terms and Financial Arrangements.

(a) The amount due CCC for feed grain purchased hereunder shall be paid by the purchaser by surrender to CCC of properly endorsed certificate(s). If certificates having a value in excess of the purchase price are surrendered by the purchaser to CCC, the certificates having the earliest dates of export shall be applied first to the purchase and any certificates not applied shall be returned to the purchaser. If the value of certificates applied to the purchase exceeds the purchase price, such excess will be adjusted by issuance and delivery to the purchaser of a balance certificate which may be used on a subsequent purchase from CCC. The date of export shown on the balance certificate will be the date shown on the original certificate, or if more than one certificate is applied to the purchase, the date of export shown on the balance certificate will be the latest date of export shown on a certificate applied to the purchase. The face value of the balance certificate will be determined by deducting from the face value of certificates surrendered to CCC, the purchase price of the feed grain and any discount applicable to the portion of the certificates being applied to the purchase as provided in section 484.117.

(b) Financial arrangements covering the purchase price specified in the Confirmation of Sale of any feed grain purchased from CCC hereunder shall be made prior to delivery of the feed grain by CCC in one of the following ways:

(1) Surrender to the appropriate CSS Commodity Office of certificate(s) sufficient to pay for the feed grain.

(2) If a purchaser desires delivery prior to receipt by CCC of certificates he shall make payment in cash, certified check, or cashier's check for the feed grain to be delivered. To the extent that certificates are received by CCC within 90 days after delivery of the feed grain to the purchaser, CCC shall promptly make refund to the purchaser of cash received. Any such refund shall be in an amount equivalent to the value of certificates determined acceptable by CCC.

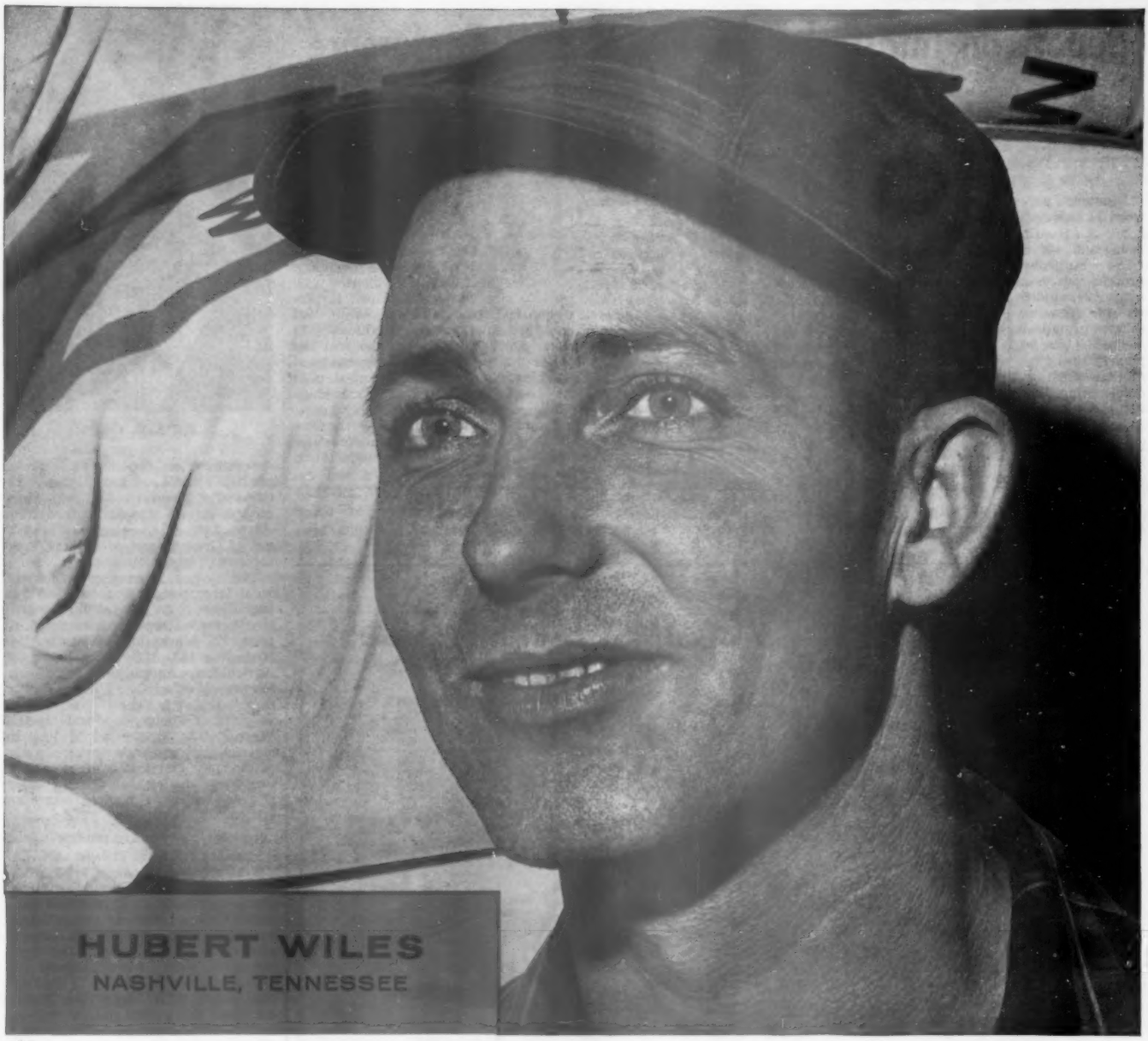
(c) The amount of the upward adjustment in price which is provided in section 484.128 for failure to submit certificates within 90 days after delivery shall be computed as of the date of sale, and shall be specified in the Confirmation of Sale. Financial arrangements for such price adjustment shall be made in one of the following ways:

(1) Payment in cash, certified check, or cashier's check, or

(2) Establishment of an irrevocable commercial letter of credit acceptable to CCC which shall have an effective period of at least 150 days from the date for delivery specified in the Confirmation of Sale and upon which CCC will draw drafts for the amount of the upward adjustment in price resulting from such failure to submit certificates within 90 days after delivery, supported by a statement signed by the Chief or Acting Chief of the Fiscal Division of the CSS Commodity Office, specifying the amount due CCC.

Promptly after CCC receives acceptable certificates in payment of the feed grain purchased as provided in (b) (2) of this section, CCC shall notify the bank which issued or confirmed the letter of credit that CCC consents to a reduction of such letter of credit, unless otherwise requested by the purchaser, or shall make refund to the purchaser of cash received. Any such reduction or refund shall be in an amount equivalent to the purchaser's financial coverage under this subsection related to the quantity for which payment has been re-

(Turn to REGULATIONS, page 81)



"We recommend Morton T-M every time"

In his area, Hubert Wiles does an outstanding job of selling Morton Trace-Mineralized Salt. His sales volume runs about 75 tons of T-M a year and T-M Salt grows increasingly important to his business and profits.

We feel the successful experience of this dealer in selling Morton T-M Salt is of value to all salt dealers. Therefore, we checked with Mr. Wiles and now pass along the "secret" of his sales success. He reports:

"*We recommend T-M Salt to all our livestock feeders.* Once started on T-M they make it a regular part of their feeding program and become steady customers. As a result our sales of T-M grow steadily.

"Any dealer should find Morton T-M a profitable item in his line. It's a quality product and the Morton name, backed by strong advertising, makes it a product that sells easily," Mr. Wiles states.

T-M Salt helps build feed business. When sold for free choice feeding to beef cattle, dairy herds, sheep and hogs, Morton T-M Salt makes all feeds do a better job for livestock raisers. That, of course, means satisfied customers and repeat orders for both T-M Salt and feeds.

If you already handle Morton T-M Salt, take a tip from Mr. Wiles and increase your sales volume and profits. If you would like to add T-M Salt to your line, write Morton Salt Company, Chicago, Illinois.

BACKED BY STRONG ADVERTISING

As a Morton dealer your T-M sales effort is backed by consistent, down-to-earth advertising in leading farm and ranch publications. Radio sales messages also tell farmers and ranchers everywhere the benefits of using T-M Salt. Listen to the Alex Dreier radio show "Topic for Today" every Saturday immediately following the "Farm and Home Hour."

MORTON T-M SALT

Report on Informal Poultry Nutrition Conference

April 13, 1958, Sheraton Hotel, Philadelphia

By Dr. J. R. Couch
Texas A&M College System

EDITOR'S NOTE: In the accompanying article, Dr. J. R. Couch reviews and comments on nutrition research papers presented at the Informal Poultry Nutrition Conference, held April 13 in Philadelphia. The discussions covered various topics of current interest to nutritionists and feed men. Nineteen papers were presented at the meeting. Dr. Couch is a professor in the departments of poultry science and biochemistry and nutrition, Texas A&M College System, College Station.

Nineteen papers were presented from 11 universities, agricultural colleges or agricultural experiment stations and six commercial laboratories. Subjects discussed included protein sources and amino acids, pigmentation studies, studies on the toxic feed ingredient, assaying for unknown growth factors, the function of antibiotics, zinc and selenium in poultry nutrition, and the chick liver storage of vitamin A as an assay for determining the biological availability of vitamin A.

PROTEINS AND AMINO ACIDS IN CHICK NUTRITION: Dr. B. D. Barnett, Clemson (S.C.) Agricultural College, discussed "Hydrolyzed Poultry Feathers as the Sole Source of Protein for Chick Growth." This study was carried out in such a manner that feather meal was supplemented with the essential amino acids so as to provide 12, 14, 16 and 20% protein of the essential amino acid requirements of the National Research Council on a 20% protein basis as a positive control. Growth was possible in the experiments carried out with no excessive mortality. Feather meal was supplemented with methionine, lysine, histidine, tryptophan, phenylalanine, glycerine and cystine in the various studies. It was concluded that histidine was the first limiting amino acid in the particular sample of feather meal used by Dr. Barnett and that the histidine requirement was possibly greater than the value given by the National Research Council or else feather meal was lower in histidine than reported by Gregory and co-workers (Poultry Sci. 35: 234-235.)

The histidine content of seven samples of feather meal has been determined in the department of poultry science of the Texas Agricultural Experiment Station. Values on the various samples ranged from .46 to .84% of the sample. The values of Gregory and co-workers were somewhat lower than this.

Dr. J. R. Couch

The proper processing of feather meal is extremely important if this ingredient is to have a high nutritive value. Attention is directed to page 12, Marketing Research Report No. 143, U.S. Department of Agriculture, Agricultural Marketing Service, Washington, D.C. The title of this report is "The Utilization and Disposal of Poultry By-Products and Waste." The writer would like to suggest that research workers in the future pay particular attention to processing history of feather meal samples used in poultry nutrition studies.

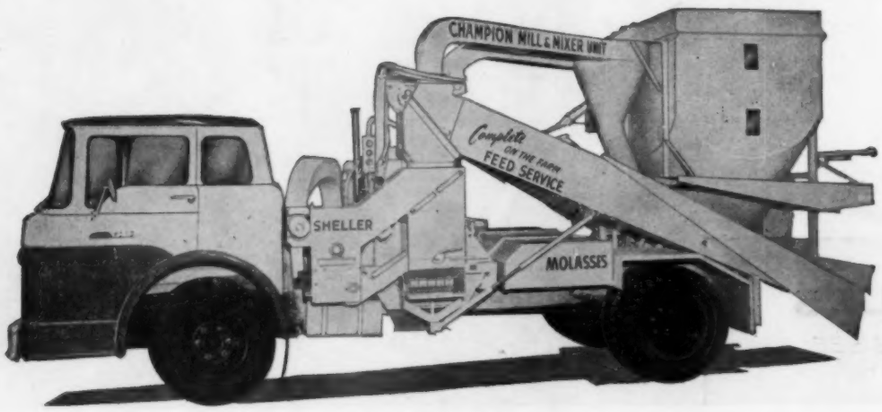
Methionine as Additive

A paper entitled "The Present Status of Methionine as a Feed Additive" was given by Dr. J. R. Couch, Texas Agricultural Experiment Station, College Station. Data were summarized from recent studies carried out by Camp and Couch (unpublished data) with broilers, experiments carried out by L. E. Deacon, B&D Mills, Grapevine, Texas, and data were also presented from the poultry department, University of Delaware, Newark, through the courtesy of Prof. T. D. Runnels.

It was concluded that the response to methionine varies with the composition of formulation of the diet. There is less of a response to supplemental methionine in a practical feed formula if the Calorie/protein ratio is maintained in the range of 42:1 for the starting period, and 48-50:1 for the finishing period. The methionine content of the mixed diet was determined in some of the studies reported. Values obtained agreed quite well with the calculated values. Data from the Texas station have indicated over the past eight years that a possibility of a response to supplemental methionine is more likely in hot weather than in cool weather.

According to the calculations of the methionine content of the diets used in the studies reported, the minimum methionine content of the protein should be in the range of 1.78-1.80. This is somewhat lower than has been suggested by other workers. The minimum methionine plus cystine content should be in the range of 3.4-3.60% of the protein. It was pointed out during the discussion that new methods for determining cystine are badly needed. The

The Feed Industry's Greatest Mobile Value!



CHAMPION

MOBILE EQUIPMENT

INCREASE YOUR FEED SALES

With Champion's new sheller arrangement you can furnish a more COMPLETE ON-THE-FARM feed service to your customers — and increase your sales of feed and concentrates. With this arrangement, ear corn and grain are fed right into the hammermill, or into the sheller—without using an auxiliary feeder. Champion has the simplest, most trouble-free, sheller arrangement ever offered on a mobile mill and mixing unit.

EXPERIENCED PERFORMANCE AT A REASONABLE PRICE

Twenty-eight years of manufacturing experience makes it possible for Champion to bring you this fine, simple and rugged unit—at the industry's most fair and honest price. This experienced performance is your assurance of Champion top quality and top value.

Write for full information

CHAMPION PORTABLE MILL CO.

2109 COMO AVE. SOUTHEAST • MINNEAPOLIS 14, MINN.

Fleischmann's F·I·D·Y
IRRADIATED DRY YEAST
RICH IN VITAMIN D FOR FOUR-FOOTED ANIMALS

accuracy of current cystine values in the literature is certainly questioned.

Dr. H. J. Newman, presently with Sterwin Chemicals, Inc., New York, and formerly at Rutgers University, New Brunswick, N.J., presented a very interesting paper on "The In Vivo Absorption of Methionine from the Intestine of the Chicken." Dr. Newman concluded that amino acids are absorbed by an active absorption process which is controlled by a cellular process. Singular amino acids are absorbed at a different rate than are mixtures. D-amino acids are also absorbed by an active cellular process. It was observed that there was competition between methionine and histidine for the absorption site in the wall of the gastrointestinal tract.

Arginiae

Dr. E. L. Patterson, of the American Cyanamid Co., Pearl River, N.Y., presented a paper entitled "Arginine in the Growth of Chicks." Dr. Patterson showed that the chick requires 1.1% arginine when the diet contains 20% casein. When the casein was increased to 24.5%, this had no further effect on meeting the arginine requirement.

It was concluded in this paper that plant protein sources are more active in meeting the arginine requirement than can be accounted for on the basis of the arginine content of such ingredients. Plant protein sources listed in this instance included peanut oil meal, sesame oil meal, soybean oil meal and cottonseed meal. This paper is of particular interest to the feed industry since practical protein supplements are used as amino acid sources in feed formulations, and it is interesting to find that such plant protein concentrates are so active in meeting the arginine requirement of the chick.

ENERGY AND ENERGY PROTEIN RELATIONSHIP AS A PREDICTER FOR BROILER PERFORMANCE: This paper was presented by Dr. L. M. Potter, University of Connecticut, Storrs. Dr. Potter showed that gains, feed conversion and Calories laid down in the chicken carcass were more closely related to the Calorie per pound content of the feed than to the Calorie/protein ratio of the formula. In the discussion which followed, Dr. Potter acknowledged that there must be an increase in the protein content of the formula as the energy level is increased.

The Calorie/protein ratio was advocated by Dr. G. F. Combs, University of Maryland, in 1955 and is still one of the best guides for the practical nutritionist to follow in formulating poultry feeds, according to the estimation and evaluation of the writer. This, in no way, questions the results presented from the Connecticut group. It should be kept in mind that many feed nutritionists must have a practical quide to follow and the Calorie/protein ratio provides such a guide.

Dr. Potter also presented data on the determination of the metabolizable and productive energy content of feedstuffs and showed that metabolizable energy is a better method for evaluating feedstuffs than is productive energy. This is in agreement with the earlier results of Dr. F. W. Hill, Cornell University, Ithaca, N.Y.

From the practical standpoint it must be emphasized that productive energy values for feedstuffs are still the most widely used by the practical nutritionist and no doubt will continue to be until correct, concise metabolizable energy values are determined and presented for all feed ingredients. The feed industry anxiously awaits such values.

DETERMINING THE APPROXIMATE COMPOSITION OF CHICKEN CARCASSES: Dr. N. T. Rand, University of Illinois, Urbana, presented a paper entitled "Comparison of Methods to Determine Approximate Composition of Chicken Carcass." Workers in the fundamental research field should write to Dr. Rand for the method.

UNIDENTIFIED GROWTH FACTORS: T. W. Sullivan, University of Wisconsin, Madison, presented a paper entitled "Assaying Fish Meals for Unknown Growth Factor Activity." All samples of fish meals and fishery by-products used in these experiments were furnished by the U.S. Fish and Wildlife Service. All test diets contained .5% fresh fecal material from older chickens. The Wisconsin group had reported earlier that contamination of the test diets with feces from older birds tends to produce a more consistent response to unidentified growth factor sources. This is the first paper in which the unidentified growth factor activity of a supplement has been expressed in units.

Condensed fish solubles was assigned a value of 10 units of "fish factor" per gram. Fish meals were assayed in terms of fish solubles as a positive control. In general, it could be stated from the data presented that the fish factor content of fish meal was lower than that of fish solubles. Some samples of fish meal appeared to contain as much unidentified growth factor activity as fish solubles. Other samples contained only about one-fourth as much activity as fish solubles. It was pointed out during Mr. Sullivan's discussion that the unidentified growth factor activity is widely distributed in a variety of products. The "fish factor" activity of fish meals was not affected by storage conditions or processing variables. From these studies, it appeared that the fish factor was stable to heat and to oxidation. This conclusion would agree with studies conducted in the department of poultry science of the Texas Agricultural Experiment Station.

MAINTENANCE REQUIREMENTS FOR NITROGEN AND ENERGY ON A FREE AMINO ACID DIET: This paper was presented by G. A. Leveille, Rutgers University, New Brunswick, N. J. Adult roosters were used as the experimental subjects. Initial studies were carried out using whole egg protein as a source of amino acids and also free synthetic amino acids as a source of nitrogen. It was concluded from the data presented that the minimum nitrogen requirement was the same whether the source of nitrogen was an intact protein such as whole egg protein or was free amino acids. The energy requirement was increased approximately 20 Calories per kilo-

(Continued on page 14)

FOR GROWING-FINISHING SWINE

91-day college test combinations tells

SWINE TEST AT LEADING MIDWEST UNIVERSITY

Results on Pasture of Various Antibiotic Combinations and Other Bactericidal Agents on Growing-Finishing Swine

(May 16 to August 15 – 91 days)

Lot No. Additive(s) in Grams per ton	1 Control 0	2 Terramycin 20	3 NF-180 50	4 BACIFERM-PB* (zinc bacitracin) 20	5 Pro-Strep 20	6 SQ-Strep 20
No. pigs per lot (Initially, there were 12 pigs per lot. Pigs removed from the experiment failed to grow or lost weight due to "enteritis" or virus pig pneumonia.)	11	10	11	12	12	11
Av. initial wt., lb.	37	37	37	37	37	37.5
Av. final wt., lb.	177	184	183	190	183	185
Av. daily gain, lb.						
First 42 days	1.25	1.37	1.31	1.44	1.24	1.38
Av. for experiment	1.54	1.62	1.60	1.68	1.60	1.62
% increase in gain	–	5.2	3.9	9.1	3.9	5.2
Av. daily feed						
Complete mixed ration	4.74	4.74	4.88	5.01	4.78	5.09
Feed per 100 lb. gain[1]	308	293	305	299	299	314
Feed cost per 100 lb. gain	$8.07	$8.02	$8.95	$8.13	$8.15	$8.45

[1]Prices used: Ground corn, $2.45 per hundred; Protein Supplement, $78.00 per ton; 14% protein ration, $2.67 per hundred; 12% protein ration, $2.60 per hundred. Cost of additives used: terramycin, 12 cents per gram; NF-180, 12 cents per gram; penicillin-zinc bacitracin mixture, 10 cents per gram; penicillin-streptomycin mixture, 10 cents per gram; streptomycin, 12 cents per gram; sulfaquinoxaline, 1.5 cents per gram.

*Contains zinc bacitracin plus penicillin (3.1 ratio)

This test compared six different treatments and included antibiotics and anti-microbial agents. Baciferm-PB produced the best average daily gain for first 42 days and at the conclusion of the experiment (91 days). Baciferm-PB also yielded the greatest percent increase in gain.

Baciferm-PB proved effective in every test! Put the efficiency of Baciferm-PB in your poultry and swine feeds. This outstanding combination of penicillin and zinc bacitracin is available in various potencies. Zinc bacitracin is an exclusive CSC product made under Patent No. 2,809,-892 issued October 15, 1957. For low-level feeding, for high-level feeding — specify Baciferm-PB.

the buy is

comparing antibiotic the story

the buy is Baciferm®-PB! And here's proof. Of 6 lots of Durocs, one was fed a ration containing Baciferm-PB, CSC's combination antibiotic supplement containing zinc bacitracin and penicillin. Result? Best average daily gains! Greatest increase in gains of all 6 lots! You can formulate this same kind of performance into your rations. Here's the evidence of effectiveness.

CSC supervised test on Tiffin Farm in Illinois also shows the superiority of BACIFERM-PB over other antibiotics in stimulating growth.

RESULTS IN FEEDING ANTIBIOTICS TO SWINE IN DRYLOT (88 DAYS)

Treatment	Basal	BACIFERM-PB* (zinc bacitracin)	Oxytetracycline	Chlortetracycline	Combination[1]
Antibiotic level, gm/ton[2]	0	50-10	50-10	50-10	50-10
Number of pigs	20	20	20	20	20
Av. Initial Wt., lb.	43.8	44.0	43.8	43.7	43.9
Av. Final Wt., lb.	184.1	191.2	183.9	190.7	201.8
Av. Daily Gain, lb.	1.55	1.68	1.59	1.67	1.80
Av. Daily Feed, lb.	6.36	6.50	6.39	6.75	6.52
Lb. Feed/lb. gain	4.05	3.76	3.99	4.04	3.63

[1] Combination contained 50% BACIFERM®-PB*, 25% Aureomycin® and 25% Terramycin®.
[2] 50 Grams of antibiotic fed from weaning to 75 pounds, 10 grams fed from 75 to 200 pounds.
* Contains zinc bacitracin plus penicillin (3.1 ratio)

This test on Hampshires indicates that Baciferm-PB is more effective than the other antibiotics in effectively stimulating growth in growing fattening pigs. Baciferm-PB improved the daily gain by 8.4% and feed efficiency by 7.7% over the control lot.

BACIFERM-PB effectiveness proved time and again at the CSC research farm. The table that follows is a brief summary of comparative performance in tests run in 1956 and 1957.

AVERAGE OF 4 SWINE TESTS (338 pigs)

Test	Percent Improvement In Growth Over Control			Percent Improvement In Feed Efficiency Over Control		
	BACIFERM-PB* (zinc bacitracin)	Aurofac	Terramycin	BACIFERM-PB* (zinc bacitracin)	Aurofac	Terramycin
T-1-56	5.0	3.6	5.0	5.8	0.5	6.0
Mc-1-56	7.1	−0.8	0.8	5.1	7.7	1.9
T-2-57	5.7	6.3	3.4	1.5	4.9	−2.5
25	8.8	−4.7	2.7	19.3	18.0	11.4
Average	6.5	1.2	3.0	7.9	7.8	4.2

* Contains zinc bacitracin plus penicillin (3.1 ratio)

Baciferm-PB consistently improved growth response over the control in each of the 4 tests. Averaging the per cent growth improvement for the three antibiotics tested clearly shows the superiority of Baciferm-PB.

BACIFERM®-PB

(Zinc Bacitracin Antibiotic Supplements Combined with Penicillin)

ANIMAL NUTRITION DEPARTMENT • **COMMERCIAL SOLVENTS CORPORATION**, 260 Madison Avenue, New York 16, New York

IN MEXICO: Comsolmex, S.A., Mexico 7, D.F. • CANADIAN SALES REPRESENTATIVE: Norman Stark

CSC

AMERICANS AT JAPANESE FAIR—The U.S. agricultural market development team representing the U.S. at the International Trade Fair in Osaka, Japan, are shown here scooping up U.S. soybeans from the U.S. display at the fair. Also being exhibited at the fair are U.S. fats, cotton, tobacco and wheat and products made in Japan from these commodities. Left to right are: Carl C. Campbell, Cotton Council International; James C. Frink, Tobacco Associates, Inc.; Jack L. Smith, Oregon Wheat Growers League; Albert B. Dimond, director and past president of the American Soybean Assn.; Clarence Miller, Commodity Stabilization Service; Raymond A. Ioanes, team chairman, and Ralph Van Hoven, National Renderers Assn.

gram of body weight per day when the source of nitrogen was free amino acids.

This is extremely interesting work which is being carried out under the supervision of Dr. Hans Fisher. The industry will no doubt see many reports from Fisher's laboratory on the use of synthetic amino acids in experimental diets for chickens in the future.

PIGMENTATION: A paper on "Pigmentation Studies with Broilers and Laying Hens" was presented by Roy C. Elrod, Archer-Daniels-Midland Co., Minneapolis. Data were presented to show that there is a definite relationship between xanthophyll and carotene. The relationship suggested by Elrod was 2.9:1 for xanthophyll to carotene in dehydrated alfalfa meal. A relationship of xanthophyll to carotene of 2.1:1 was used by Ferguson and Couch in a recent paper entitled "The Economics of Pigmentation" (Feedstuffs, March 15, 1958, page 82). Xanthophyll is inherently more stable to oxidation than carotene in alfalfa. There was a 39.5% retention of carotene and a 56.5% retention of xanthophyll during a six-month period. Elrod used milo as the grain source in the standard Animal Nutrition Research Council reference diet.

Data were presented which showed quite conclusively that 20% protein dehydrated alfalfa meal produced better pigmentation in broilers than did the 17% protein product. The writer has consistently recommended an improvement in the quality of dehydrated alfalfa meal which is to be used in poultry feeds. The 20% protein product contains a higher level of energy and a lower level of fiber as well as a high xanthophyll pigmentation potential.

Elrod obtained just as good growth on an all-milo Animal Nutrition Research Council diet as on one containing corn as a sole source of grain. It was pointed out during the discussion which followed that the 5% fat used in the Animal Nutrition Research Council reference diet may have masked the possible lower energy content of milo.

Five percent dehydrated alfalfa meal produced the maximum pigmentation with an all-milo formula whereas only 2.5% dehydrated alfalfa meal was required for the maximum pigmentation with a formula containing corn as the grain source. The pigmentation score was not further increased by adding 2.5% corn gluten meal to the formula, according to the data of Elrod.

Studies were carried out on the pigmentation of egg yolks. An 18-day test period was used. Egg yolk color was increased as the level of dehydrated alfalfa meal was increased up to 7.5% of the total laying mash formula. Attention of the reader is directed to the paper entitled "The Economics of Pigmentations" (Feedstuffs, March 15, 1958, page 82). Dehydrated alfalfa meal is a most significant source of xanthophyll for use in practical feeds. The studies presented by Elrod are certainly a further addition to this field.

FUNCTIONS OF ANTIBIOTICS: Dr. Martin Forbes, Walter Reed Institute of Research, Washington, D.C., in collaboration with Dr. W. C. Supplee, University of Maryland, College Park, Maryland, presented a paper entitled "Comparative Response of Poults to Antibiotic Supplementation of a Purified Diet Under Germ-Free and Conventional Rearing Conditions." Penicillin and oleandomycin produced an increase in growth only under conventional rearing conditions but not under germ-free conditions. This confirms earlier reports by other workers. It was concluded that the growth promoting effect of antibiotics had to be through an effect on the intestinal microflora.

It should be pointed out that numerous attempts have been made to study the microflora of the digestive tract of animals fed antibiotics versus those not fed the drugs. This subject has been studied extensively in the department of poultry science of the Texas Agricultural Experiment Station. Results obtained have not been consistent from experiment to experiment and from one laboratory to another.

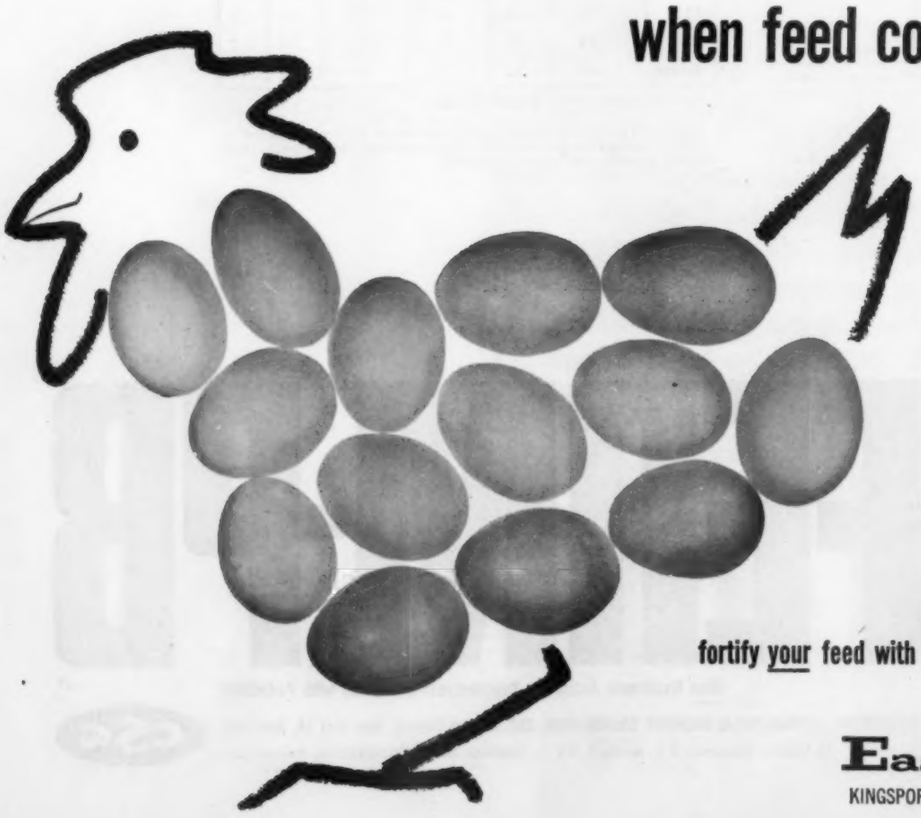
It has been reported recently that there is an increase in the white blood cell counts of birds fed antibiotics. This would tend to assist in the alleviation of an undesignated or unspecified disease level.

It is the opinion of the writer that the specific function of antibiotics is still unknown. The drugs do promote growth and improve the general well being of animals when included in the diet. The best explanation for the favorable effects of adding antibiotics to the diet of chicks, turkeys, laying hens and other animals has been that the drugs overcome a "nonspecific disease level." It is realized that this is very abstract and inconclusive; however, the data presented in the paper by Forbes again substantiate the statement.

THE TOXIC FEED INGREDIENT IN POULTRY FEEDS: Two papers were presented on the toxic feed ingredient which has been reported in the popular press to be associated with the use of certain fats in poultry feeds. The first of these papers was presented by Dr. H. M. Edwards, University of Georgia, Athens. Experiments were conducted with both chicks and hens. The condition in chicks is similar to that which has been described and consisted of a

layers seem to be made of eggs...

when feed contains Tecmangam



For productive, healthy flocks manganese is essential —and Tecmangam is an ideal source for this vital element.

Tecmangam contains 75-78% manganese sulphate in a completely soluble, readily assimilable form. It is easy to add to feed. Free-flowing, non-dusting, Tecmangam is a clean material to work with.

In addition, Tecmangam helps chicks remain free of perosis. Egg shell breakage is reduced. Hatchability is improved.

Provide an adequate level of manganese in your feed by adding one pound of Tecmangam to every ton.

fortify your feed with **tecmangam**

Eastman manganese sulphate

Eastman CHEMICAL PRODUCTS, INC.

KINGSPORT, TENNESSEE · Subsidiary of Eastman Kodak Company

marked hydropericardium. From 1 to 5 cubic centimeters and even up to 15 centimeters of fluid may be found in the heart sac of three-week-old chicks fed the toxic fat. Dr. Edwards cautioned feed manufacturers to be careful in choosing samples of fat from the same carload due to the extreme variation in samples taken from the same car.

The toxic fat sample was also fed to laying hens. Egg production stopped after 55 days of feeding the toxic fat to the hens. Lesions in the hens were quite different from those observed in chicks. There was no effect on the pericardium. An excessive number of egg yolks were found in the body cavity. Hatchability of fertile eggs was decreased.

Ohio Report

The second paper entitled "Studies on Toxic Properties Associated with the Use of Certain Fats" was presented by Dr. G. E. Naber, Ohio State University, Columbus. Dr. Naber observed, as did the previous speaker, that the heart sac was distended and filled with fluid in chicks fed the toxic fat sample and observed further that the abdomen might also be distended and filled with fluid. There was no effect on the hematocrit, a small effect on the red blood cell count, and the total white blood cell count was definitely increased. There was also an increase in the heterophylls (phagocytic white cells) from the normal of 13% to as much as 33% of the total white cells.

Dr. Naber reviewed earlier work on the toxic effects of heat treated cottonseed oil and stated that there appeared to be a relationship between the toxicity produced by heat treated cottonseed oil and the present toxic fat factor.

EFFECT OF FAT STABILITY ON EXUDATIVE DIATHESIS, ENCEPHALOMALACIA AND MUSCULAR DYSTROPHY: This interesting paper was presented by Dr. L. J. Machlin, Monsanto Chemical Co., St. Louis. Dr. Machlin opened his presentation by stating that Dr. H. R. Bird reported over 15 years ago that a pericardial condition could be produced in chicks by feeding rancid fats. Santoquin protected against exudative diathesis at the .05 level. Dr. Richard S. Gordon of Monsanto Chemical Co., who was the moderator of the session in which this paper was given, stated that in the field condition of hydro-pericardium there

CREATIVE RESEARCH and ANALYSIS

ANNOUNCING DETERMINATION OF VITAMIN E ACTIVITY IN FEEDS AND FEED INGREDIENTS

By Chemical Methods

Write Today for Brochure

Describes laboratory services for food, beverage, pharmaceutical, chemical, cosmetic and feed industries, as well as services to general industry

ROSNER-HIXSON LABORATORIES
and Laboratory of Vitamin Technology div.
7737 South Chicago Ave., Chicago 19, Ill.

SW

FOR THE BEST IN

ROLLER MILLS

SPROUT-WALDRON

MUNCY, PENNA.

it pays to be a Dannen dealer

"Dannen Mills sold me on going into the feed business, and now that I'm in it, I'm mighty glad. I've got dozens of new hatchery customers because I'm the Dannen Dealer. And what's more, my hatchery customers are getting better results than ever, now that they're on Dannen Feeds."

Jim Bowman
Bowman Hatchery
Maysville, Missouri

Progressive businessmen like Jim Bowman know that a Dannen Dealership adds to their prestige and to their pockets! To make and keep customers—offer Dannen—**"the feeds that mean profit for farmers and dealers who mean business!"**

Here's How Dannen Helps You Sell:

Premium Promotions
Product Control Department
Feeder Finance Programs
Effective Point-of-Sale Material
Outdoor Signs
Special Promotion for New Dealers
Sales Training School for Dannen Dealers and their Employees
Concentrated Farm Resale
Extensive Advertising
Newspaper
Farm Paper
Radio
Research Farm
Feeder Meetings
Dealer Meetings
New Eye-Catching Package Design
Local Newspaper Advertising
Live Displays

DANNEN

DEALERSHIPS AVAILABLE
WRITE TODAY FOR COMPLETE INFORMATION

"the feeds that mean profit for farmers who mean business"

DANNEN MILLS, INC.

ST. JOSEPH, MO.

was an indication of first, vitamin E deficiency, and secondly, a specific toxicant effect.

CHICK LIVER STORAGE—BIOLOGICAL ASSAY FOR DETERMINING THE BIOLOGICAL AVAILABILITY OF VITAMIN A: There were two papers presented on this subject. The first presentation was made by Dr. Stanley R. Ames, Distillation Products Industries, Rochester, N.Y. In this case, Dr. Ames proposed that chicks 7-14 days of age be used and that the birds be individually fed with 1000 and 2000 U.S.P. units of vitamin A by capsule and that a U.S.P. standard reference solution of vitamin A be used as the positive control. The chicks were killed 48 hours later and the vitamin A content of the livers determined by standard procedures.

Dr. Ames was quite specific in defining the various points concerned with this type of assay. First it was stated that direct supplementation determined availability and that availability is not to be confused with stability. These are two separate entities. Availability is a measure of the absorption of the vitamin A fed. Stability is a measure of the resistance of vitamin A to oxidation and destruction. According to the report of Dr. Ames, all sources of vitamin A were equal with regard to availability. The sources used included a U.S.P. reference standard, a dry, stabilized vitamin A, and a water miscible vitamin A.

Dr. F. H. Bird, Eastern States Farmers Exchange, Inc., Ellinton, Conn., presented a second paper in which the method proposed above by Dr. Ames was used to evaluate commercial vitamin A preparations and also concluded that the availability of vitamin A from different sources was the same when carried out according to the procedure described above by Dr. Ames.

No doubt, there will be a great deal of discussion in trade circles with regard to the suitability and advisability of using the quick liver storage method proposed by Dr. Ames for determining the efficacy of various vitamin A preparations offered to the feed trade.

ZINC IN POULTRY NUTRITION: The first in this series of papers was entitled "Preliminary Observations on the Role of Zinc in the Nutrition of Laying Hens," which was presented by Dr. D. L. Blamberg, University of Maryland, College Park. Dr. Blamberg first reviewed earlier reports from the University of Missouri on the essential nature of zinc for the chick and the earlier report by Dr. Combs and co-workers from Maryland, on the role of zinc in preventing leg weakness, promoting growth and improving feathering in turkey poults.

The experimental design was such that laying pullets had little or no access to zinc contamination. A deficiency of zinc had no effect on egg production, egg weight or fertility. Supplementation of the basal diet with .01% zinc chloride increased hatchability from 53.3% to 69.7%, and supplementation with .02% zinc chloride increased hatchability still further to 81.8%. Hatchability dropped from 81.8% to 50.0% when the zinc chloride was removed from the diet of the group which had received .02% in the diet. When the basal diet was supplemented with .02% zinc chloride, hatchability increased from 52.3% to 70%.

It is apparent from these results that a deficiency of zinc has a very definite effect on hatchability and bryonic development. Such an effect was observed by Drs. H. S. Wilgus and L. C. Norris at Cornell during the studies carried out prior to 1936, as well as by Lyons and Insko at the University of Kentucky, which were reported in 1937.

There was also a definite effect on egg shell thickness from supplementation of the basal diet with zinc. The writer remembers the many reports from the field on poor egg shell quality which occurs during the period from about May 15 to Sept. 1 and which has been thought to be associated with hot weather plus the fact that the birds are nearing the end of the laying year. Certainly research workers should study the effect of adding zinc to the diet of laying hens in the field to improve egg shell quality during hot weather.

Georgia Studies

Dr. H. M. Edwards, University of Georgia, Athens, presented the second paper entitled "Studies on Zinc in Poultry Nutrition." Dr. Edwards stated that the results from the Georgia studies indicated that the soybean oil meal-corn diets which have been so widely used in chick experimental studies were border line in zinc, especially during periods of stress.

The reader is referrred to a paper presented by Dr. L. C. Norris of Cornell University at the 13th Distillers Feed Conference, March 12, 1958, for a discussion on the present status of zinc in poultry nutrition. Dr. Norris stated that the zinc content of practical chick and broiler formulas varied in from 40 to 50 milligrams per kilogram.

Dr. Edwards reported further on studies carried out with laying hens. Data had been summarized at the end of a 10-week experimental period, at which time there was no effect on hatchability or egg production. It is possible that the same effects observed at the University of Maryland by Dr. Blamberg (described above) may be found in the experimental hens of Dr. Edwards with a longer period on the deficient diet. It was brought out during the discussion that there is a possibility that all of the zinc in feed ingredients may not be available and that there is a carry-over of zinc from the hen through the egg to the chick.

It was mentioned above that zinc supplementation experimentally might be indicated with hens fed on practical diets during periods when trouble is experienced with egg shell quality—especially during hot weather. Zinc supplementation on a practical basis is also indicated in areas where there is a great deal of trouble with hock disease in turkey poults from the earlier report by Dr. G. F. Combs and co-workers at the University of Maryland. The level of zinc to use in such instances would be within the range of 25-50 ppm of supplemental zinc.

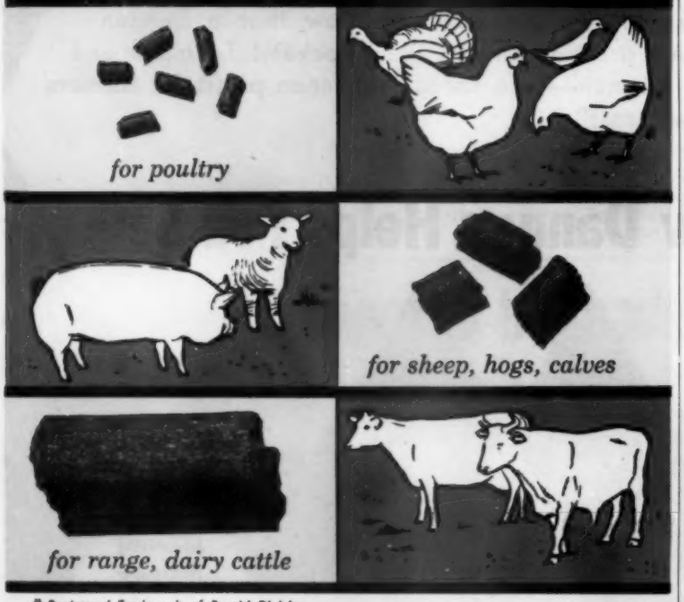
SELENIUM, VITAMIN E AND BREWERS YEAST: Two papers presented in this series: The first was entitled "Studies on the Effect of Selenium, Vitamin E and Brewers Yeast on Reproduction of Chickens and Livability of Offspring" and was presented by Dr. L. S. Jensen, Washington State College, Pullman. Dr. Jensen and co-workers have carried out an extensive test using a Torula yeast type diet with laying hens as the experimental animals and have studied the effect of feeding such a diet on the livability of the offspring from hens fed in this manner. This work has been in progress for approximately three years and extensive experiments have been conduct-

(Turn to CONFERENCE, page 78)

for producing pellets economically

use NATIONAL Western Bentonite

THE SUPERIOR BONDING ADDITIVE



* Registered Trademark of Baroid Division, National Lead Company

BAROID

BAROID DIVISION
National Lead Company

National Western Bentonite's lubricating quality assures faster, easier pelletizing . . . reduces die wear . . . increases production efficiency . . . lowers manufacturing costs. At the same time it provides stronger pellets that won't crumble—yet, are easily eaten by both poultry and livestock. This superior bonding additive enhances sales appeal with its surface gloss—locks in nutritional value of feed.

Mail coupon today for additional information on NATIONAL Western Bentonite, prices and distributors.

BAROID DIVISION • NATIONAL LEAD COMPANY 6723
ROOM 1864, McCORMICK BUILDING
332 SOUTH MICHIGAN AVENUE CHICAGO, ILLINOIS
Please send me your latest literature.

NAME_____

COMPANY_____ TITLE_____

ADDRESS_____

CITY_____ STATE_____

NOW... TRADE IN YOUR OLD GRAM SCALE
on the NEW Seedburo No. 14 Scale

HERE'S YOUR OPPORTUNITY TO OWN ONE OF THE FINEST 4-IN-1 GRAM SCALES EVER MADE . . . THE SEEDBURO NO. 14 GRAM SCALE . . . AND SAVE YOURSELF MONEY.

$44.75 WITH CUP
(Less trade-in allowance of $5.00—your cost $39.75)*

FASTER
MORE ACCURATE

By simply moving a lever the new Model No. 14 can be changed from a sliding type poise to a positive position notch type poise. Beam is notched at 50 gram intervals which insures absolute accuracy for moisture tests and dockage tests.

*Note: Send us your old Gram Scale for trade-in allowance of $5.00.

SEEDBURO EQUIPMENT COMPANY

This Offer Will Be Made for Limited Time Only. Order Now. Write Dept. FS5:

618 W. Jackson Blvd.
Chicago 6, Ill.

The ranch-type house did away with the unsightly clutter in the attic and basement. Now, it's in the garage.

◆ ◆ ◆

The doctor stopped the nurse and asked, "What is that skinflint patient complaining about now?"

The nurse replied, "He says he got well before all the medicine was used up."

◆ ◆ ◆

One rat, recently returned to his cage, ran to a fellow rat and exclaimed: "You know, I've got Dr. Zilch conditioned!"

"How so?" asked his colleague.

"Well," replied the first rat, "every time I press the bar, he gives me food!"

◆ ◆ ◆

A little fellow, calling on a neighbor with his mother, suddenly said, "Mrs. Rand, may I see your new bedroom rug?"

"Why, Tommy, how nice of you to be interested. Of course you may go in and look."

"Gee, Mommy," he said, puzzled, "—it didn't make me sick!"

◆ ◆ ◆

They used to say, "It's too late to shut the barn door after the horse has been stolen." But with modern cars, that's the only time you can shut the garage door.

◆ ◆ ◆

The bishop had preached a fine sermon on married life and its beauties. Two old Irishwomen coming out of church were heard commenting on the sermon, "'Tis a fine sermon his Riverence would be after giving us," said one to the other.

"It is, indade," was the quick reply, "and I wish I knew as little about the matter as he does."

◆ ◆ ◆

Paying no attention to the red traffic light, the whizzing cars, or the policeman's outraged whistle, the little old lady marched across the street. Brakes squealed, horns blasted and the cop strode angrily up to her. "Say, lady," he growled, "didn't you see my hand raised?"

"Well, I should hope so," snapped the lady. "I've been teaching school for 25 years."

◆ ◆ ◆

Educators like a story about two first-graders standing outside school one morning. "Do you think," asked one, "that thermonuclear projectiles will pierce the heat barrier?"

"No," said the second. "Once a force enters the substratosphere . . ."

Then the bell rang. Said the first: "There goes the bell. Darn it, now we gotta go in and string beads."

◆ ◆ ◆

The shop keeper decided to sell $17 electric shavers for $15 as a loss-leader to bring new customers into his store. The day of the sale a big sign went up in the window of his competitor across the street: "We repair $15 electric shavers."

assure your future with

Shellbuilder

pure crushed reef oyster shell

Shellbuilder Co.
Melrose Bldg. • Houston, Texas

. . . week-a-month protective feeding

FURAZOLIDONE (nf-180)

prevents more poultry diseases than any other drug

Opens new profit opportunities for you . . . makes the best feeds perform even better

2 pounds of nf-180* per ton of feeds, gives you the best trouble-fighting feed you ever sold. Recommend feeding this all-mash ration 5 to 7 days every month or whenever stress is likely. The egg-producing results poultrymen get help build your reputation for top performing feeds.

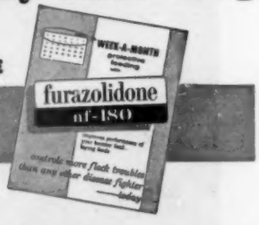
Furazolidone prevents and treats more disease troubles than any other drug . . . fowl typhoid, pullorum, paratyphoid and blackhead. Protects flocks from chronic respiratory disease (air sac), blue comb (non-specific enteritis), quail disease (ulcerative enteritis) and secondary bacterial invaders.

Whether you sell popular brand booster feeds with furazolidone, or mix your own, furazolidone "week-a-month protective feeding" will do the disease-fighting work . . . let your feed take the credit.

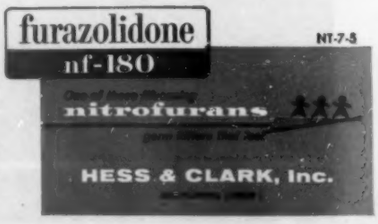
Furazolidone comes to you premixed as nf-180 in 10, 50 or 100 lb. drums. Contact your Hess & Clark representative or Feed Products Division for complete mixing information.

**2 pounds of nf-180 per ton is expressed on feed tags as 100 grams furazolidone or 0.011%.*

FREE



Write for this kit of field reports and sales boosting ideas.

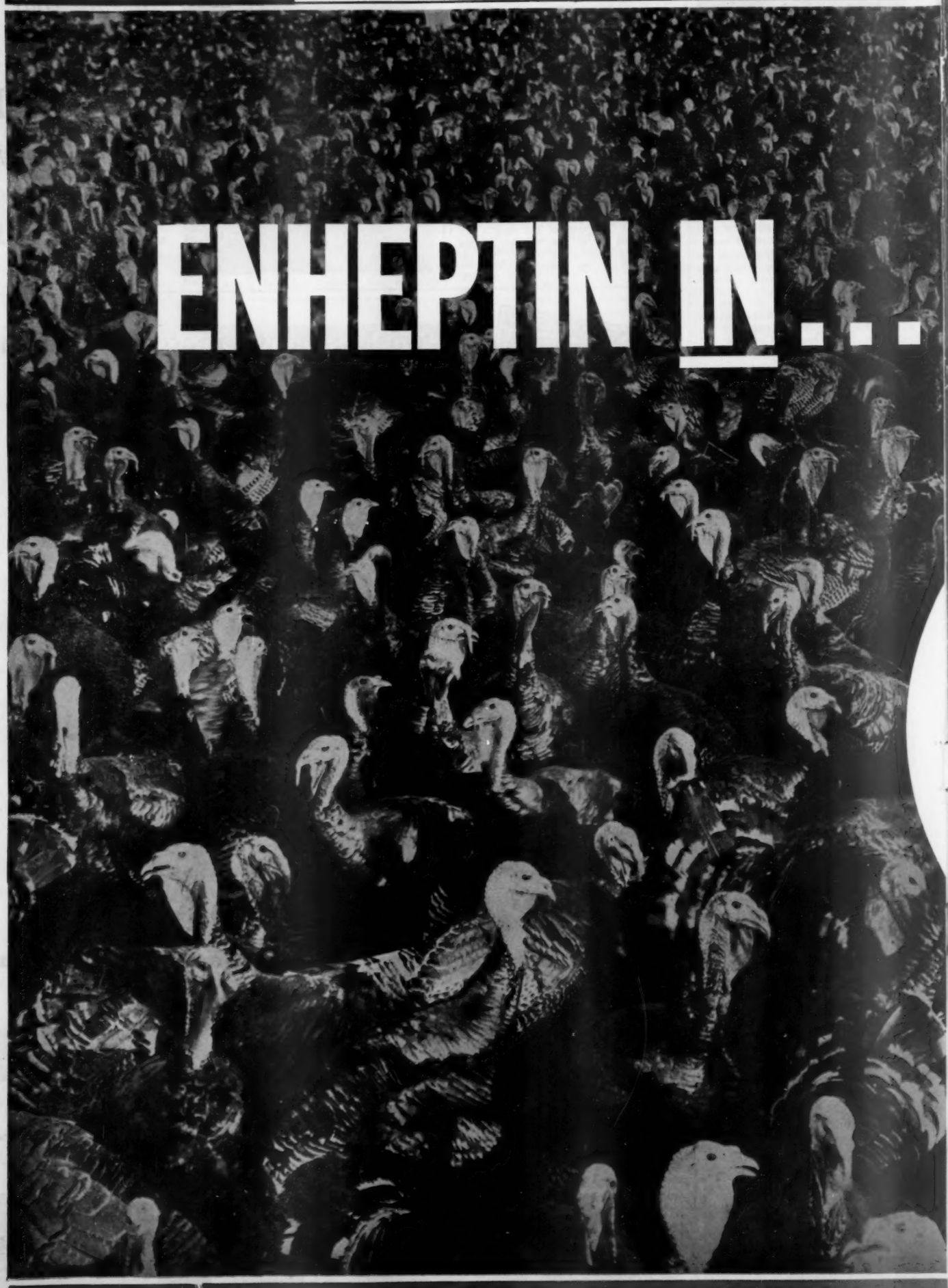


"It's a new-fangled idea for pre-stuffed turkey—I'm getting SUCRO-FLAVORed Feed for my last meal"

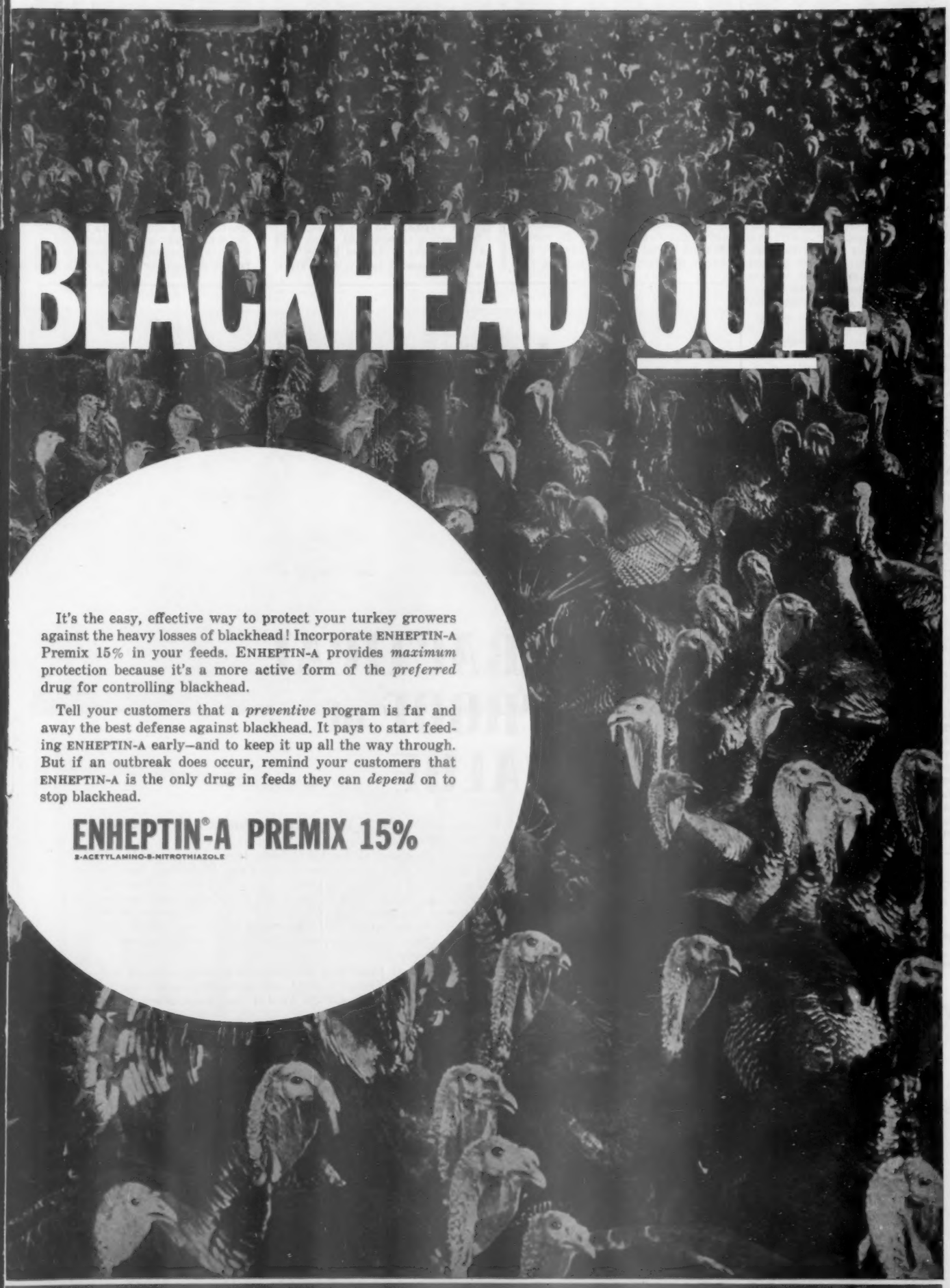
© 1958 by
FLAVOR CORPORATION OF AMERICA
3037 N. CLARK STREET • CHICAGO 14, ILLINOIS

CYANAMID

Helps you sell more turkey feeds



ANIMAL FEED DEPARTMENT · AGRICULTURAL DIVISION



It's the easy, effective way to protect your turkey growers against the heavy losses of blackhead! Incorporate ENHEPTIN-A Premix 15% in your feeds. ENHEPTIN-A provides *maximum* protection because it's a more active form of the *preferred* drug for controlling blackhead.

Tell your customers that a *preventive* program is far and away the best defense against blackhead. It pays to start feeding ENHEPTIN-A early—and to keep it up all the way through. But if an outbreak does occur, remind your customers that ENHEPTIN-A is the only drug in feeds they can *depend* on to stop blackhead.

ENHEPTIN®-A PREMIX 15%

2-ACETYLAMINO-5-NITROTHIAZOLE

AMERICAN CYANAMID COMPANY · NEW YORK 20, N.Y.

Recent Missouri Feeding Trial Results Get Attention at Spring Livestock Day

COLUMBIA, MO.—Reports on cattle and hog feeding trials, consumer meat preferences and on the use of hormones and other additives in feeding were discussed at the Spring Livestock Day held at the University of Missouri campus recently.

Dr. W. H. Pfander, reporting on a trial in which the performance of 800-lb. steers fattened on rations containing different levels of protein was compared, said those on a medium protein level made greater gains than those fed the same ration supplemented with smaller amounts of protein.

Two of the four lots of steers used in the trial were fed a ration containing 6.8% digestible protein throughout the 140 days of the test. The remaining two lots were started on a ration containing 7.8% protein that was first reduced to 6.8% protein and then still later to 5.8% protein.

Tapazole Tested

In addition to testing the effectiveness of various protein levels, the feeding trial also compared the effects of adding hexestrol—a hormone-like substance—to the test rations, Dr. Pfander said. Tapazole—a comparatively new feed additive—was also tested in the ration on one lot of steers during the final phase of the test.

All four lots of cattle in the test were fed a ration made up of corn silage, ground ear corn, soybean oil meal, and a mineral supplement of limestone, bonemeal and cobaltized salt.

The four lots of cattle in the test were handled in the following manner:

Lot 1. The seven animals received a ration containing 7.8% protein during the first eight weeks of the test, 6.8% the next seven weeks, and 5.8% the final seven weeks. Daily per head gains for the three phases were 2.6, 2.2, and 1.2 lb., respectively. Average gain for the entire test was 2.1 lb. daily—the lowest of the four lots in the trial.

Lot 2. The ration fed this group of eight animals contained 6.8% protein throughout the trial plus a daily 10-milligram hexestrol addition per steer. Average daily gain for each steer in the lot amounted to 2.7 lb.

Lot 3. The varying amounts of protein used on lot one steers were also used on the eight steers in this group. In addition, they received a daily portion of 10 mgs. of hexestrol throughout the test. Their daily gains for the three phases were 3.3, 2.6, and 1.4 lb., respectively, while the overall gain amounted to 2.5 lb. daily.

Lot 4. Seven steers were fed on the same ration as those in the second lot except that during the final seven-week phase small amounts of Tapazole were included in the ration. These steers also gained at the daily rate of 2.7 lb. during the test.

Dr. Pfander said that Tapazole is designed to slow down the activity of the thyroid gland which, in turn, slows down the physical activity of animals on feed. This allows them, in theory, to make more efficient use of the food they eat. In recent Missouri work, the feed additive did reduce the feed intake but, at the same time, didn't increase weight gains.

In fact, he said, steers getting Tapazole gained 1.8 lb. per head daily while steers not getting the additive but otherwise treated the same made 1.95 lb. of gain each day.

More Marbling Noted

The steers getting the Tapazole had noticeably smoother hair coats than any of the steers in the other three lots, Dr. Pfander said. Also, there was a greater amount of marbling in the rib eye of the carcasses from the animals receiving Tapazole when compared to the carcasses of other animals in the test.

The initial dose of Tapazole amounted to 80 mgs. per head daily and was later increased to 100 and 125 mgs. daily. The latter amount definitely gave the depressed feed intake expected following the addition of Tapazole to the ration.

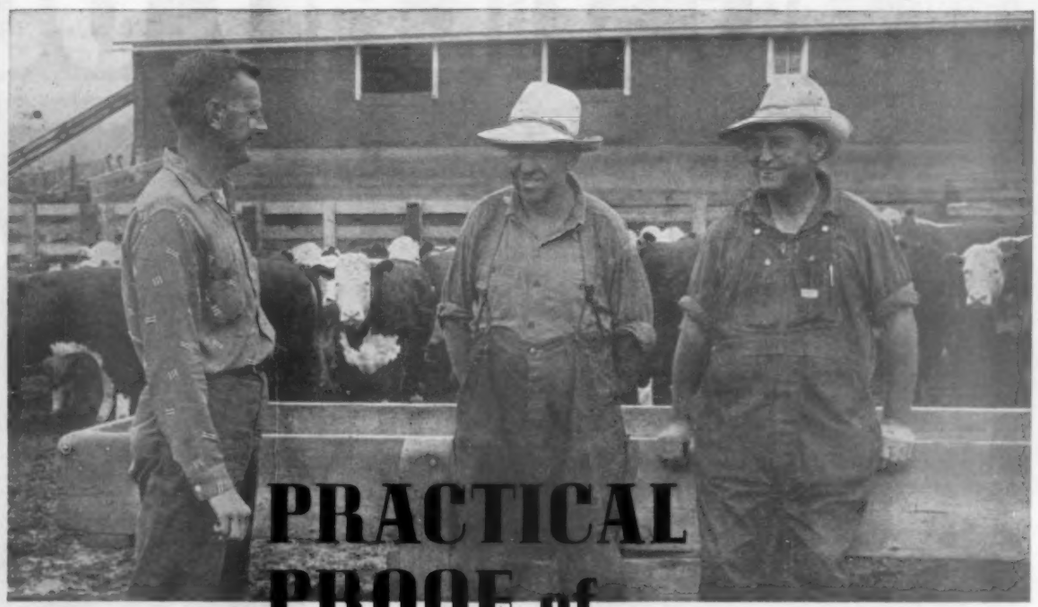
The effect of hexestrol when used as an implant at 12 and 24-mg. levels was discussed by Dr. A. J. Dyer, chairman of the animal husbandry department. He said the implants increased rate and economy of gains made by steer calves wintered on a corn silage, soybean meal and steamed bonemeal-salt mixture, and he said that the 24-mg. level was of more benefit than the 12 mg.

Daily gains during the 107-day wintering period ranged from 1.8 lb. for steers in check lots, through 2 lb. at the 12-mg. level, to 2.2 lb. at the 24-mg. level.

Hexestrol also increased the returns from the ration.

There was no benefit from implanting yearling cattle that grazed wheat pasture followed by grass-lespedeza mixture.

Cattle full-fed grain on pasture benefited from a 36-mg. hexestrol implant. The increase in gain was .3 lb. gain daily — 2.5 lb. gain in the treated lot as compared to 2.2 lb. for the control lot—and the increased efficiency amounted to nearly a half bushel of corn for every 100 lb. gain



PRACTICAL PROOF of VALUE

S K

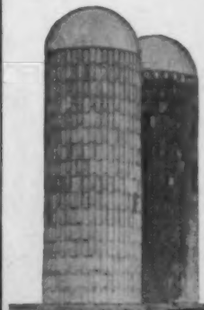
The real proof of value in a protein supplement is the way it pays off. For instance . . .

Swanton Brothers, Goose Lake, Iowa, here photographed with feed dealer Wilmer Lary, proved the value of feeding Spencer Kellogg Linseed Oil Meal by getting top prices for their Herefords (they feed 600 head a year). Testing this proof, they tried another supplement. The cattle they then shipped sold at discounts of $2.50 to $3.00 from the market top. Returning to feeding S-K meal in their ration, they regained top or within 25¢ of the market top for the day for every car.

That's practical proof that the best conditioning pays off and proof of the value of better feeding with real quality protein supplements. Famous S-K Linseed Oil Meal is always available for your best formula feeds.

SPENCER KELLOGG MEAL SALES OFFICES ARE LOCATED AT:

Buffalo CL 5850 · Chicago FR 2-3437 · Decatur 5365
Des Moines CH 4-7291 · Long Beach NE 6-2331
Minneapolis FE 5-4221 · Philadelphia PE 5-8787



SPENCER KELLOGG AND SONS, INC.
BUFFALO 5, N. Y.

KELLOGG'S THE TEST TELLS 1894

Spencer Kellogg Mills are located at: EDGEWATER, N. J. • BELLEVUE, OHIO • CHICAGO, ILL. • DECATUR, ILL. MINNEAPOLIS, MINN. • DES MOINES, IOWA • EL CENTRO, CALIF. • LONG BEACH, CALIF.

More and More . . . Feed Mills Are using More and More Stabilized ANIMAL FATS and MEAT PROTEINS

Find Out Why . . . WRITE
NATIONAL RENDERERS ASSOCIATION
Organized In 1933
30 N. LA SALLE ST.
CHICAGO 2, ILL.
Phone FR 2-3289

MILBREW CO.
BREWERS' DRIED YEAST
PROCESSORS SINCE 1933
3456 N. BUFFUM ST.
MILWAUKEE 12, WIS.
PHONE ED. 2-3114

during the 114-day finishing period.

Carcasses from the hexestrol implanted lot graded slightly higher than those from other lots.

The corn silage ration, supplemented with a soybean oil meal and steamed bonemeal-salt mixture, has proved to be one of the best winter rations available to Missouri livestock producers, he said.

He noted that for steers treated with the 24-mg. implant, only 1,590 lb. of corn silage and 94 lb. soybean meal and mineral mixture were needed to make 100 lb. gain.

Trials With Stilbestrol

In another trial using corn silage and soybean oil meal, steers treated with stilbestrol implants also made more rapid and efficient gains than similar calves not treated with the hormone.

J. E. Comfort, staff member, reporting on this trial, said calves treated with 4 mg. gained at a rate of 1.9 lb. a head daily as compared to a gain of 1.6 lb. in the check lot. Calves getting the 12-mg. implant gained 1.75 lb. daily, he said.

Taking a look at what the consumer wants in beef was Dr. Don Naumann, University meats specialist. He said a recent consumer study showed that they prefer the fatter grades of beef.

Insulin Injections

Another report on beef tests at the university showed that insulin injections are still giving promise of providing a method of detecting beef animals that produce dwarf offspring.

Dr. John F. Lasley, reporting on the study, said further work is needed, however, before the limitations of the test under a wide variety of conditions are fully known.

A feeding trial involving boars and barrows from the same litters of pigs was discussed by W. E. Pugh, extension animal husbandman. He said pairs from the same litters showed considerable variation in rate and efficiency of gain.

On the average, he said, boars in the test gained at a faster rate than their barrow mates. The average for boars was 1.7 lb. compared to a gain of 1.5 lb. for the barrows.

But, among the boars, there was wide variation in rate of gain, efficiency of gain and backfat probes. And there was also wide variation in the gain, feed efficiency, carcass data and percentage of lean cuts in the barrows.

"Such variations make the value of these data in selection of breeding stock very apparent," he said.

Confinement Feeding

Dr. Leland Tribble, university swine specialist, said, "Confinement feeding is currently attracting hog producers' attention. However, management, disease control, building, and equipment problems are involved in such an operation."

Dr. Tribble said the system is becoming popular because it allows hog feeders to intensify their operations without enlarging their farms.

Multiple farrowings should be considered as a part of a confinement-feeding system, he said. One commonly-used plan for multiple farrowings involves a sow herd divided into two groups and managed to produce two litters a year.

When pigs are weaned at four weeks, an extra building—a nursery—is needed, Dr. Tribble pointed out. It now appears that pigs do best when kept in small lots of 20 to 30 during the six weeks they're in the nursery. Sanitation, temperature, and ventilation are all important during this phase of production, and, while in the nursery, pigs need 8 to 10 sq. ft. of floor space each.

When weaned at eight weeks, pigs are generally moved directly to growing and finishing sheds. At present, 50 pigs are considered an optimum number per pen in the feeding phase, Dr. Tribble said. Twelve to 15 sq. ft. of floor space are needed for each fattening hog.

Sow's Ration

In confinement rearing, as in other production systems, major emphasis is placed on the brood sow's ration as the number of pigs weaned per litter has a direct bearing on profits, he continued. However, the confinement system presents no new problems in feeding the brood sow.

Pigs should have a good creep ration available by the time they are two weeks old. For pigs in the growing-fattening stage, or from 50 lb. to market, the nutritional requirements aren't as exacting as they are in earlier stages of life, Dr. Tribble said.

Results at the University and in other states indicate that, in most cases, free-choice feeding is more profitable than feeding a complete mixed ration. The level of antibiotics in the ration can be lowered and possibly removed after pigs reach 125 lb. without seriously affecting performance, Dr. Tribble said.

Soybean Associations To Meet in Des Moines

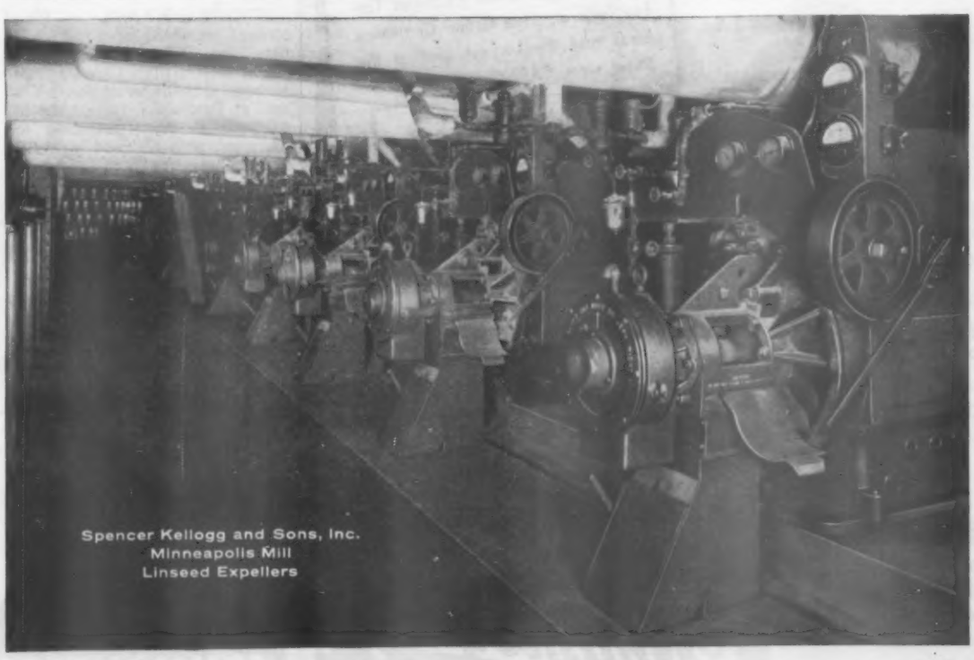
HUDSON, IOWA—The joint annual meetings of the American Soybean Assn. and the National Soybean Processors Assn. will be held at Hotel Fort Des Moines (Iowa) Aug. 18-20, George M. Strayer, executive vice president and secretary-treasurer of the ASA, announces.

The processor group will meet Aug. 18 and the ASA, which is the producer group, will meet the following two days, Mr. Strayer says. This will be ASA's 38th annual meeting and the fifth consecutive year the producer and processor associations have met together.

famous SPENCER KELLOGG
linseed oil meal
produced in
ANDERSON EXPELLERS

KELLOGG'S FINEST FEEDS 1894

» Congratulations to Spencer Kellogg and Sons, Inc.! Many feeders of grand champions use Spencer Kellogg's Linseed Oil Meal. » Spencer Kellogg's Linseed Oil Meal is of the highest uniform quality. It is produced in Anderson Expellers, the finest machines in their field today. » All three Spencer Kellogg Linseed Meal plants use Anderson Expellers. Spencer Kellogg's Linseed Oil Meal provides a good source of quality protein plus natural fat and other factors which aid in good conditioning of animals. » Insist on Expeller type Linseed Oil Meal. Let us send you a catalog giving complete details on the Anderson Super-Duo Expeller process. « «



Spencer Kellogg and Sons, Inc.
Minneapolis Mill
Linseed Expellers

THE V. D. ANDERSON COMPANY
division of International Basic Economy Corporation, 1944 West 96th Street • Cleveland 2, Ohio
ONLY ANDERSON MAKES EXPELLERS

FEED
SAVE WAY
FEEDS
SAVE WAY FEED MILLS
CHICKASHA, OKLAHOMA
Branch Locations:
BROKEN ARROW, OKLAHOMA • HICO, TEXAS
PILOT POINT, TEXAS • FORT WORTH, TEXAS

DISTRIBUTED BY THE FOX COMPANY
FOXCO
QUALADEE
A and D
VITAMIN OIL
NEWFIELD NEW JERSEY
"PRODUCTS OF PROGRESS"

Inspection Plan for Poultry Discussed

ATHENS, GA.—The topic of federal poultry inspection boosted attendance beyond expectations at the Poultry Operations Seminar. Nearly 150 attended the first day of the affair. It was sponsored by the Southeastern Poultry & Egg Assn.

Processing plant supervisory personnel, faced with optional federal inspection of poultry in May and compulsory inspection by Jan. 1, 1959, were well represented on the first day of the three-day course at the University of Georgia's Advanced Continuing Education Center.

Dr. J. K. Keim, U.S. Department of Agriculture poultry inspection area supervisor, in response to questions, made these statements:

"1. Inspectors can provide authoritative certification of the number of condemned birds in specific lots, provided that an accurate system of lot identification is established in the plant.

"2. Inspectors will require removal of kidney tissue, but will not require removal of accessory blood vessels and nerve tissues that are in the back of the chicken.

"3. Inspectors anticipate no problem from the occasional chicken head that is knocked off by picking machines.

"4. Birds will not be rejected because of slight 'pinking' in the wings and back, provided they are well bled."

Dr. W. L. Mallman, department of bacteriology, Michigan State University, discussed sanitation in food processing. H. W. Chapman, U.S. Public Health Service, Atlanta, discussed water supply and waste disposal as inspection will affect it.

Other speakers on the afternoon program included Dr. Robert Courter, also of the U.S. Public Health Service in Atlanta, discussing occupational health and personal hygiene, and B. F. Bjornson, U.S. Public Health Service, Communicable Disease Center, Chamblee, Ga., speaking on insect and rodent control.

Stable Prices Expected For Soybean Oil Meal

MINNEAPOLIS—Continued favorable feeding ratios and increased animal numbers should keep soybean oil meal consumption at a high level, and this should keep prices at a good level through the crop year, according to Fred Hafner, director of soybean oil meal sales for the soybean division of General Mills, Inc.

"Whereas the cash market probably has reached the highest point at which meal will trade this crop year, I can foresee no price adjustments that would put meal back in the price range of January," he said in a soybean oil meal market report this week.

The report said that in former years when there has been a limited amount of raw material and excellent demand for oil, meal went begging. This year there are adequate raw material, a limited demand for oil—which he says is partly due to the recession and partly to belated P. L. 480 action—and excellent demand for soybean meal.

Cash meal is in good demand, he said, although it is not scarce, and price levels for cash product continue firm except for the more deferred positions. He pointed out that some sales of cash meal have been made for as much as $10 ton discount under nearby, mostly for summer meal.

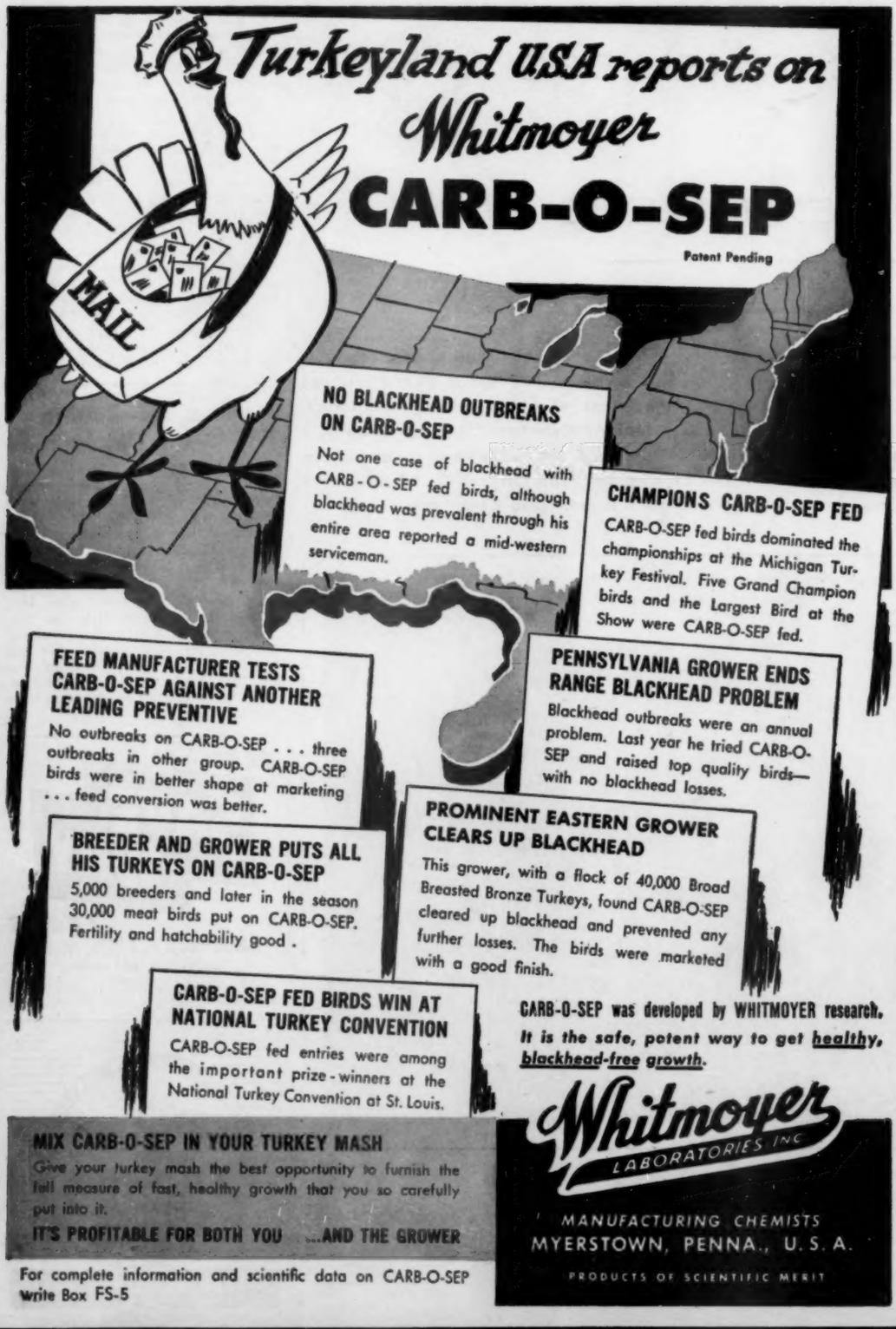
He advised caution in extending forward ownership, but said that meal inventories should be maintained at a safe level, particularly during periods when feeding is at a high rate.

ANIMAL HEALTH PRIZE AWARDED SCIENTIST

WASHINGTON — Dr. Edwin L. Jungherr, head of the department of animal diseases of the Connecticut University Agricultural College and a world authority on poultry diseases, was presented the Animal Distinguished Service Research Award by the Animal Health Institute at its meeting here April 28-30. Dr. Jungherr was selected by the AHI's board of judges for his outstanding achievements in animal disease research which have contributed to the productive capacity of the multi-billion dollar livestock and poultry industry. The award, which includes an engraved plaque and $1,000 cash, was made at a special luncheon at the 18th annual meeting of the AHI at the Shoreham Hotel. Dr. Jungherr has several recognized "firsts" in research. He developed the pathology of poultry diseases into a recognized field of veterinary science. He is credited for classifying diseases of the nervous system of poultry and is responsible for major pioneer work in the study of virus diseases of poultry. He was the first scientist to report leptospirosis in cattle in the U.S.

Soy-Rich Appointment

WICHITA, KANSAS — Ralph C. Moore, president of Soy-Rich Products, Inc., Wichita, has announced the appointment of Charles C. Milnes as general manager of the firm's feed mill at Pawhuska, Okla. Mr. Milnes succeeds V. W. Mendenhall, former manager, who resigned recently. Mr. Mendenhall has not announced his plans for the future.

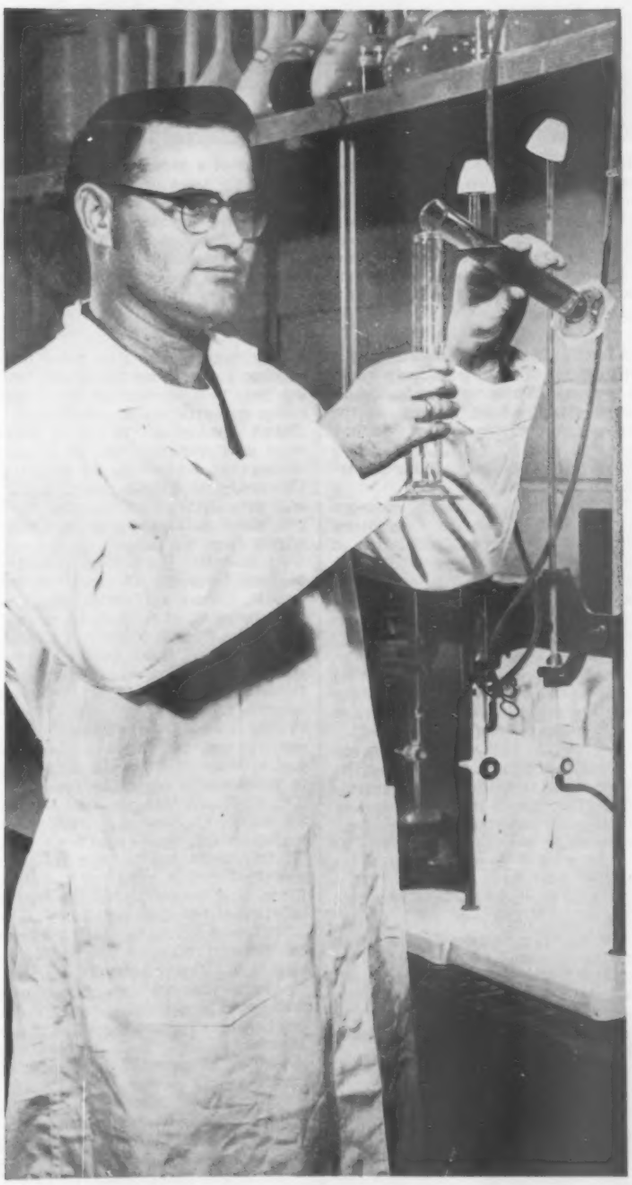

Turkeyland USA reports on
Whitmoyer
CARB-O-SEP
Patent Pending
MAIL
NO BLACKHEAD OUTBREAKS ON CARB-O-SEP
Not one case of blackhead with CARB-O-SEP fed birds, although blackhead was prevalent through his entire area reported a mid-western serviceman.
CHAMPIONS CARB-O-SEP FED
CARB-O-SEP fed birds dominated the championships at the Michigan Turkey Festival. Five Grand Champion birds and the Largest Bird at the Show were CARB-O-SEP fed.
FEED MANUFACTURER TESTS CARB-O-SEP AGAINST ANOTHER LEADING PREVENTIVE
No outbreaks on CARB-O-SEP . . . three outbreaks in other group. CARB-O-SEP birds were in better shape at marketing . . . feed conversion was better.
PENNSYLVANIA GROWER ENDS RANGE BLACKHEAD PROBLEM
Blackhead outbreaks were an annual problem. Last year he tried CARB-O-SEP and raised top quality birds—with no blackhead losses.
BREEDER AND GROWER PUTS ALL HIS TURKEYS ON CARB-O-SEP
5,000 breeders and later in the season 30,000 meat birds put on CARB-O-SEP. Fertility and hatchability good .
PROMINENT EASTERN GROWER CLEARS UP BLACKHEAD
This grower, with a flock of 40,000 Broad Breasted Bronze Turkeys, found CARB-O-SEP cleared up blackhead and prevented any further losses. The birds were marketed with a good finish.
CARB-O-SEP FED BIRDS WIN AT NATIONAL TURKEY CONVENTION
CARB-O-SEP fed entries were among the important prize-winners at the National Turkey Convention at St. Louis.
CARB-O-SEP was developed by WHITMOYER research.
It is the safe, potent way to get healthy, blackhead-free growth.
MIX CARB-O-SEP IN YOUR TURKEY MASH
Give your turkey mash the best opportunity to furnish the full measure of fast, healthy growth that you so carefully put into it.
IT'S PROFITABLE FOR BOTH YOU ...AND THE GROWER
Whitmoyer LABORATORIES INC
MANUFACTURING CHEMISTS
MYERSTOWN, PENNA., U. S. A.
PRODUCTS OF SCIENTIFIC MERIT
For complete information and scientific data on CARB-O-SEP Write Box FS-5

SCROGGINS GRAIN CO.
Phone FE 5-3913 — Teletype: MP 344
WHOLE and GROUND GRAINS and SCREENINGS
MINNEAPOLIS, MINNESOTA

SW
FOR THE BEST IN
CRUMBLIZERS
SPROUT-WALDRON
MUNCY, PENNA.

BUTLER

POLLYPHOS...OFFERS....



Feed and Mineral Manufacturers

19%

Phosphorus for LESS Cost!

YES . . . it is **true** . . . BUTLER POLLYPHOS offers the feed and mineral manufacturer in the western half of the United States, a defluorinated phosphate with an all time high phosphorus content of **19%** . . . a minimum 32%—maximum 35% calcium and no more than .19 % fluorine . . . at the **lowest** delivered cost per unit of phosphorus.

These are important factors to consider . . . when next purchasing your phosphorus requirements.

When you buy BUTLER POLLYPHOS you are assured of getting the maximum in return for your phosphorus buying dollars . . . whether in bags, or in bulk, truck or carload lots, you receive more for less cost.

Contact the sales agent nearest you, or our home office, for additional information regarding the advantages BUTLER POLLYPHOS can offer you.

BC 5912

Butler
CHEMICAL COMPANY

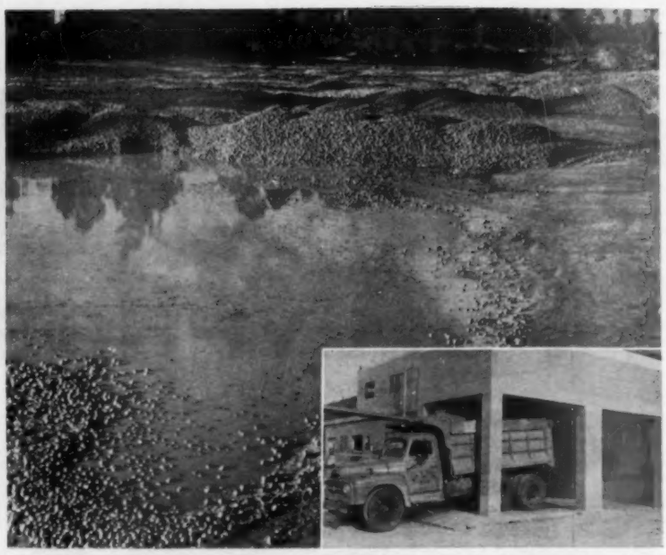
BUTLER CHEMICAL COMPANY

P. O. Box 938 Phone OR 2-7587 Galena Park, Texas

LOCATED ON THE HOUSTON SHIP CHANNEL

SALES AGENTS: Warner Brokerage Co., Inc., Minneapolis; Carroll Swanson Sales Co., Des Moines; James P. Sprigg Co., Los Angeles; Feed Products, Inc., Denver; White Star Concentrates Co., Portland; E. A. Towns Limited, Vancouver 1, B.C.

FROM GREEN TOMATOES TO CATTLE FEED—Present at the first trial run of the pilot plant which dehydrates green cull tomatoes and converts them into pulp and then cattle feed were these men, left to right: Walter S. Klements, B&L Farms, secretary of the committee on waste tomato disposal; Dan Vincent, manufacturer of the dehydrating equipment; C. P. Thayer, Dade County (Fla.) health department, and Bill Hall, sales manager of the Vincent firm. Tomatoes in hopper are conveyed to slicer, then to screw press.



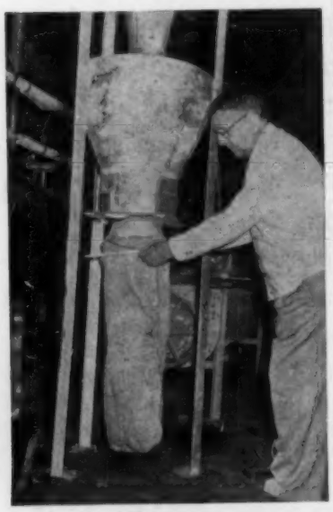
FLORIDA CULL TOMATO DUMP—This is one of a growing number of cull tomato dumps which cover acres of ground with piles of tomatoes several feet high in the tomato-growing regions of Florida. Pond in the foreground is mostly tomato juice drained from the piles of cull tomatoes. The accumulation, which creates stench and health hazards, has caused Florida growers to set up a pilot feed plant for processing the wastes into cattle feed. Plant is located on B&L Farms, where truck loads of cull tomatoes like one in the inset picture leave at the rate of one truck every 15 minutes during the packing season.

Florida Feed Plant Tests Value of Cull Tomatoes

By PORTER V. TAYLOR
Feedstuffs Special Writer

Since May, 1956, a group of Florida tomato growers has been searching for an answer to the ever-increasing problem of disposal of cull tomatoes in the South Florida area.

A federal marketing agreement prohibits the sale of tomatoes which are faulty, over-ripe or damaged, and in the mass production farming area the mountainous piles of culls have been hauled away and dumped in remote unused lands.



FIRST TOMATO FEED—C. P. Thayer, Dade County health department, catches the first bag of finished feed as it comes through the pilot plant.

However, this has always been an expensive operation, and lately it has become practically impossible to find suitable dumping grounds. Residents anywhere near the area complain that the spoiling tomatoes are a menace to health, and that they produce an unbearable stench as well as breed flies and other insects.

C. P. Thayer, Dade County health officer; Nolan Durre, assistant Dade County agricultural agent, and Earl Byrd, Florida City tomato grower, arranged for a meeting of growers to consider this problem back in August of 1956.

Mr. Byrd appealed to the Florida Tomato Committee for financial aid in initiating a research program to determine the best solution. The committee, comprised of the major growers, is the over-all authority for administering the Federal Tomato Marketing Agreement. Mr. Byrd was appointed chairman of a disposal committee, and Walter Klements of B&L Farms was appointed secretary. An initial grant of $4,500 was allocated to the University of Florida for research to study the feasibility of utilizing cull tomatoes by drying them into a pulp and reprocessing them into feed for dairy cows.

Dr. R. A. Dennison, head of food technology and nutrition at the University of Florida, concluded that a satisfactory dried tomato pulp could be produced. Three or four feed companies expressed an interest in the project. Manufacturers of poultry feed and dog food also are looking into the possibility of utilizing the tomato pulp.

Dr. W. E. Black, general manager of the Florida Tomato Committee, said, "Any commercial utilization of cull tomatoes should, growers feel, defray part of the cost of handling by the efficient conversion of waste tomatoes into by-products of commercial value."

Based on similar experiences with citrus pulp and on present cost of disposing of the tomatoes, various tentative estimates have been made which indicate that the process of converting the cull tomatoes into usable cattle feed can not only pay its way but can result in some operating profit. The cost of trucking tomatoes to dumps in outlying areas has been estimated to be about $50 a ton. The processing cost may be about $35 a ton and feed companies feel that a suitable pulp perhaps could be worth from $50 to $60 a ton.

Fresh green tomatoes have been utilized as cow feed for some time, but being of a highly perishable nature and because of the transportation problems involved, only a fraction of the culls can be disposed of in this manner.

Build Pilot Plant

On the basis of these indications, a pilot plant for the dehydration and reconversion of cull tomatoes into cow feed has been put into operation at the B&L Farms at Princeton, Fla. The purpose of the pilot plant is to produce enough feed for actual feeding tests to determine the long range effect on cattle under carefully controlled conditions. The pilot plant went into operation late in January of this year, and within a few months University of Florida research men will have detailed information on digestibility, milk production and other effects from the feed.

At this time the outlook is said to be very favorable. George Pedersen, tomato grower at Perrine, Fla., and vice chairman of the tomato committee of the Florida Fruit & Vegetable Assn., says, "I think this is a promising picture with the potential of turning a waste product into some revenue instead of an expense." Mr. Pedersen added that if this development proves satisfactory, there is a good chance that it will be applied to other waste vegetables.

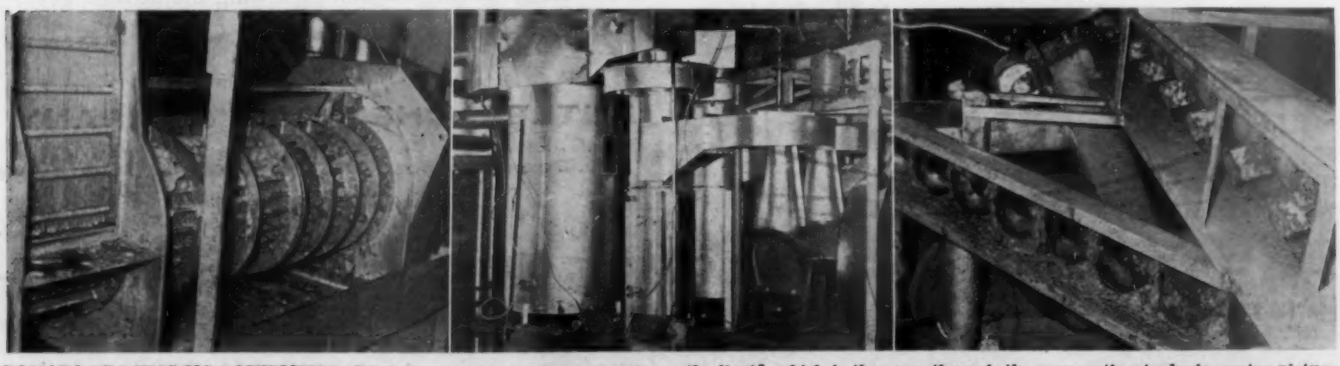
C. E. Reger, vice-president of Hector Supply Co., one of Florida's leading manufacturers of cow feeds, says, "If this turns out to be a palatable cow feed and is good for the cows, there is a potential for the use of substantial tonnage in this area."

Wilton Adams, regional manager for General Mills in south Florida, also says, "The production of several thousand tons or more of tomato pulp could be a sizeable factor in the southeastern feed picture. If it is satisfactory here, the process may spread to other vegetable producing areas."

Possibilities Seen

Feed men are now importing several thousand tons of beet pulp from South America, Europe, and some

(Turn to TOMATOES, page 71)



TOMATO PROCESSING EQUIPMENT—Pilot plant equipment for converting the cull tomatoes into palatable feed for Florida dairy cattle can be seen in this picture sequence. On far left is screw press which removes most of the liquid, which is then run through the evaporating tanks in center picture. The thick, concentrated moist pulp is then run through a drying tank. Final stage, underway in picture on right, is the process of remixing the dried tomato pulp with the thick liquid concentrate to form the final feed.

Lilly **REPORT TO THE FEED INDUSTRY**

'Hygromix'...fights swine worm problem full time

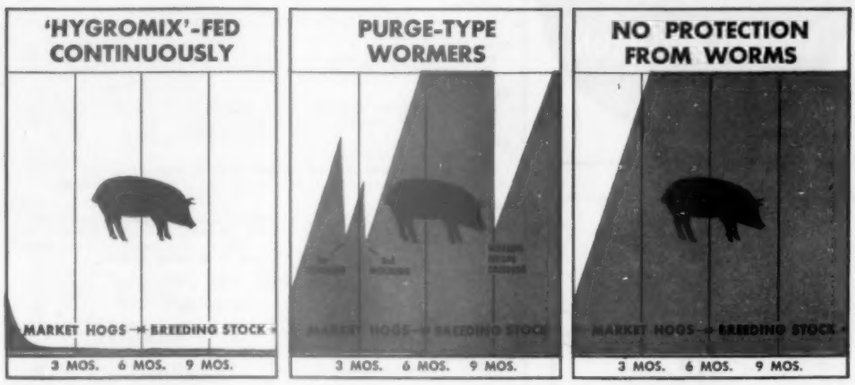
Here's why feeds with 'Hygromix' provide continuous worm control for entire swine herds... how 'Hygromix' fights worm problem full time instead of only part time.

by Eugene S. Hahnel

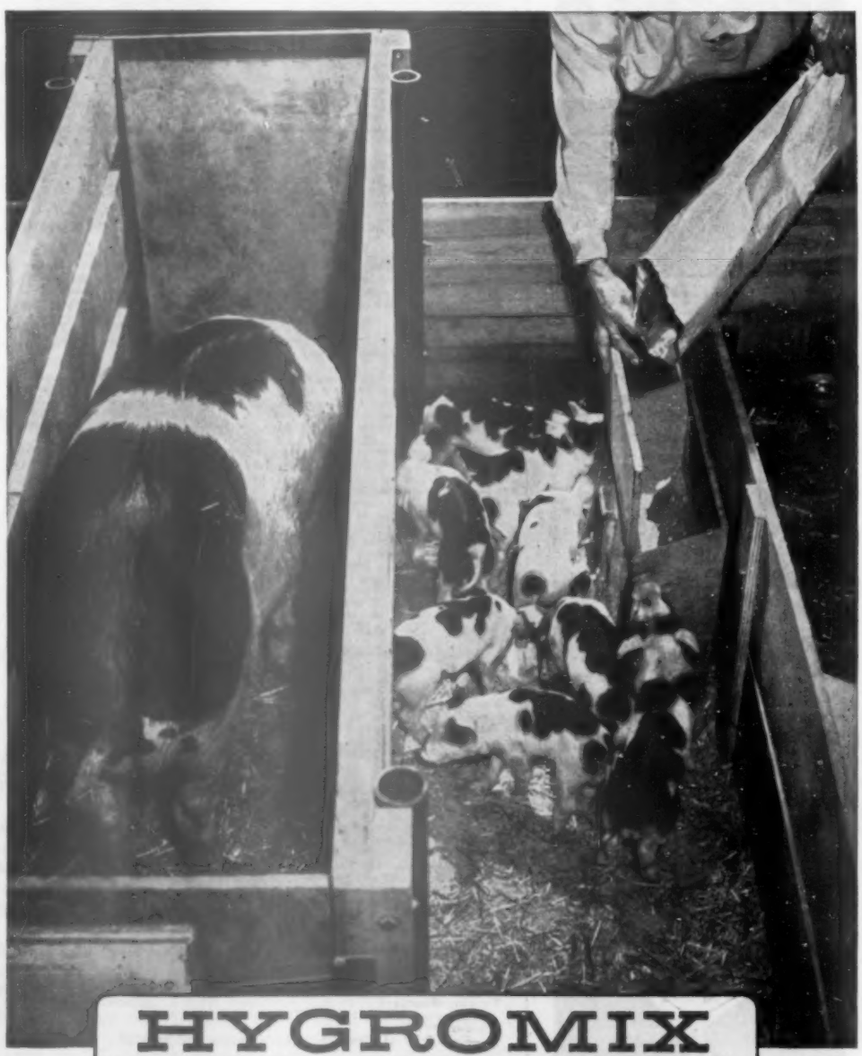
Scientists have long known that worms and disease are almost always closely associated. Worms, or their larvae, attack live tissue in many vital organs of the hog... heart, liver, kidney, lungs, intestines, stomach; even the blood stream. Like tiny knives, they damage tissue and open up spots for germs to get a foothold. Worms may even carry germs or viruses along with them, perhaps even serve as hosts for certain diseases.

'Hygromix' protects herd health continuously. Worms and their damage or side-effects are one of the main causes for swine herds that don't do as well as they could. Until 'Hygromix,' the best we could do was to purge our hogs of one or two types of worms... once or twice between weaning and market. But much of the damage to live tissue and vital organs was already done ... and worms started to multiply again immediately after treatment. (See "Purge-Type Wormers" chart, above center.) Continuous use of 'Hygromix' feeds keeps damage from happening... protects herd health continuously. (See "Hygromix-fed Continuously" chart, above left.)

You get dividends now and later. By offering your swine feeds with 'Hygromix' for *all* hogs, *all* the time, your customers can prevent worm damage, worm side-effects and losses before they begin, and keep them under control—instead of trying to cure the problem too late. By controlling worms you can expect your swine feeds to produce a higher level of herd health, fewer poor-doing or stunted pigs, and improved feed efficiency. Farms where your 'Hygromix'-fortified feeds are used can expect rapidly to become practically free of millions of worm eggs from three of the most costly and damaging worms which commonly infest swine (large roundworm, nodular worm, whipworm). New generations of pigs need no longer be caught up in the cycle of life-long damage by these internal parasites.


'HYGROMIX'-FED CONTINUOUSLY
MARKET HOGS → BREEDING STOCK →
3 MOS. 6 MOS. 9 MOS.
PURGE-TYPE WORMERS
3 MOS. 6 MOS. 9 MOS.
NO PROTECTION FROM WORMS
MARKET HOGS → BREEDING STOCK →
3 MOS. 6 MOS. 9 MOS.

The blue areas in these charts represent herd infestation of roundworms, nodular worms and whipworms. As we face the continuous swine worm problem, we have three choices. We can do nothing about it... and take our losses. We can use purge-type wormers one or more times for temporary relief. Or we can use 'Hygromix'-fortified feeds continuously for all hogs. These charts show the kind of worm protection we can expect under each swine-management system. The blue area shows the estimated population of these worms (with resultant worm-egg production and tissue damage) for each system. White space shows freedom from these three worms.



HYGROMIX

(*S. hygroscopicus* Fermentation Products, Lilly)

Lilly

MAKERS OF **Stilbosol** (Diethylstilbestrol Premix, Lilly)

ELI LILLY AND COMPANY, AGRICULTURAL AND INDUSTRIAL PRODUCTS DIVISION, INDIANAPOLIS 6, INDIANA

SW
FOR THE BEST IN FEED
SCALPERS
SPROUT-WALDRON
MUNCY, PENNA.

Welcome DPL Protection

Your broilers and

your flock replacements

will welcome the sure protection of DPL vaccines. DPL offers you that unique combination, a wide choice of safe vaccines and a wide choice of methods of application, both mass and individual. You will like DPL quality vaccines – their safety and convenience.

A vaccination program designed by DPL pathologists for your individual conditions and requirements may be obtained by writing DPL and stating pertinent information concerning your poultry operation. Write today for this personalized service.

Delaware Poultry Laboratories | Millsboro, Del.

DPL

FEEDSTUFFS
A WEEKLY NEWSPAPER
For the Feed Manufacturer, Feed Jobber
Feed Broker and Feed Dealer

Index for March, 1958

Volume 30 Numbers 9-13

*First number denotes issue date; "p" and second number denote page number.

EDITOR'S NOTE: This is an index of principal articles and news stories in the four March issues of Feedstuffs. Hereafter an index will appear each month, covering the previous month's issues.

ADDITIVES:
New Additive Boosts Cattle Gains ..... *1—p. 1

ALFALFA:
Alfalfa Meal Output Down ..... 29—p. 8
Bloat-Reduced by Dehydrated Alfalfa ..... 15—p. 8

ANALYSES:
Chemical Analyses of Feeds ..... 1—p. 24
Feedstuffs 1958 Analysis Table ..... 22—p. 84

ANTHELMINTICS:
Anthelmintics for Poultry ..... 1—p. 59
Feeds With Hygromycin No Longer Under "New Drug" Ruling ..... 1—p. 8

ANTIBIOTICS:
Antibiotics Compared in Broiler Rations ..... 15—p. 61
Aureomycin Cleared as Liver Abscess Weapon ..... 29—p. 7
California Livestock Day ..... 8—p. 36
Feeding Penicillin for Control of Bloat in Grazing Cattle and Its Effect on Milk Production ..... 29—p. 46
Feeds With Hygromycin No Longer Under "New Drug" Ruling ..... 1—p. 8
Field Trial of Zinc Bacitracin in Laying Rations ..... 1—p. 76
New Hampshire Poultry Conference ..... 15—p. 66
Northwest Feeding Developments ..... 22—p. 10

ARSENICALS:
Use of Arsenicals in Swine Feed ..... 8—p. 52

ASSOCIATIONS & CONVENTIONS:
American Feed Manufacturers Assn. (Purchasing Agents Committee) ..... 15—p. 1
American Poultry & Hatchery Federation (National Egg Commodity Group) ..... 22—p. 1
American Poultry & Hatchery Federation (Package Egg Program Report) ..... 1—p. 32
Association of Southern Agricultural Workers (Nutrition Reports) ..... 1—p. 10
Colorado Grain, Milling & Feed Dealers Assn. (Meeting) ..... 8—p. 4
Farmers Grain Dealers Assn. of Illinois (Annual Meeting) ..... 8—p. 81
Farmers Union Central Exchange (Integration Legislation) ..... 15—p. 6
Institute of American Poultry Industries (President Named) ..... 22—p. 6
Iowa Farm Bureau (Plans Farm Operation Meetings) ..... 15—p. 50
Iowa Seed Dealers Assn. (Secretary-Treas. Named, illus.) ..... 1—p. 82
Midwest Feed Manufacturers Assn. (Convention) ..... 1—p. 1
Midwest Feed Manufacturers Assn. (New Officers, illus.) ..... 8—p. 8
Minneapolis Grain Shippers Assn. (Meeting) ..... 15—p. 52
Mississippi Cattlemen's Assn. (Annual Meeting) ..... 1—p. 80
Montana Feed Manufacturers & Dealers Assn. (Officers, illus.) ..... 1—p. 60
New York State Turkey Assn. (New Officers) ..... 1—p. 33
Northwest Feed Manufacturers Assn. (Meeting) ..... 15—p. 46
Ohio Grain & Feed Dealers Assn. (Convention) ..... 1—p. 8
Ohio Grain & Feed Dealers Assn. (Officers, illus.) ..... 8—p. 4
Oregon Feed & Seed Dealers Assn. (Officers) ..... 22—p. 6
Oregon Livestock & Poultry Feeders Assn. (New Association) ..... 15—p. 61
Oregon Poultry Council (Officers) ..... 29—p. 7
Pacific Coast Renderers Assn. (Convention) ..... 8—p. 48
Quad State Grain, Feed & Seed Assn. (Convention) ..... 22—p. 4
Southern Agricultural Workers Assn. (Elects President) ..... 1—p. 34
Southern Agricultural Workers Assn. (Meeting) ..... 1—p. 10
Texas Feed Manufacturers Assn. (Merger Proposed) ..... 29—p. 8
Texas Grain & Feed Dealers Assn. (Merger Proposed) ..... 29—p. 8
Vermont Beef Breeders Assn. (Meeting) ..... 1—p. 59
Vermont Poultry Assn. (Resolution Adopted) ..... 22—p. 29
Virginia State Feed Assn. (Meeting) ..... 22—p. 94

AUTHORS:
Arscott, Dr. G. H.
—Barley in Poultry Rations ..... 8—p. 10
Blair, Jess F.
—Versatility Builds Sales for Oregon Feed Firm..... 1—p. 64
Bolin, D. W., and Dinusson, W. E.
—Comparisons of Meal, Pellets, Crumbles and Repelleting Barley Rations for Swine ..... 15—p. 26
Burroughs, Dr. Wise; Preston, Rodney; Culbertson, C. C., and Kline, Dr. E. A.
—New and Improved Methods of Using Stilbestrol Supplements in Cattle Fattening Rations ..... 22—p. 32
Carlson, G. A.
—Mixers and Mixing in the Feed Plant ..... 22—p. 48
Couch, Dr. J. R., and Ferguson, Dr. T. M.
—The Economics of Pigmentation ..... 15—p. 82
Crawford, Dr. Wid P.
—Animal Nutrition Reports at the Southern Agricultural Workers Meeting ..... 1—p. 10
Culbertson, C. C. (see Burroughs, Dr. Wise)
Dinusson, W. E. (see Bolin, D. W.)
Faris, Dr. W. S.
—Am I Really a Manager? ..... 22—p. 18
Ferguson, Dr. T. M. (see Couch, Dr. J. R.)
French, Dr. Charles E. (see Faris, Dr. W. S.)
Gates, George
—Foxbilt Swine Lease Program Gives Feed Volume Big Boost ..... 29—p. 10
Heuser, Dr. G. F.
—Various Grit Sizes Studied in Broiler Feeding Tests... 29—p. 40
Kastelic, Dr. Joseph
—Chemical Analyses of Feeds and Their Implications... 1—p. 24
Kline, Dr. E. A. (see Burroughs, Dr. Wise)
Meade, Dr. R. J.
—Report on Progress in Swine Feeding—A Half-Century Report ..... 8—p. 29
Miller, Raymond W., and Miller, Robert W.
—Public Relations for Small Business Owners ..... 22—p. 20
Miller, Robert W. (see Miller, Raymond W.)
Nelson, Al P.
—Costs and the Results of Modernizing Custom Mills.. 15—p. 36
—Effective Advertising Wins Friends for Osage, Iowa, Feed Co. ..... 29—p. 30
—Efficient Custom Feed Mills Are Prospering ..... 8—p. 70
—Flexible Sales and Service Policy Meets Customer Needs 1—p. 26
—Grinding and Mixing Charges ..... 22—p. 86
—The Human Factor in Custom Milling ..... 29—p. 34
—No Sales Bats Are Missed by Iowan's Varied Service.. 15—p. 55
—Roadside Display Case Boosts Trade for Off-Road Feed Firm ..... 22—p. 40
—Virginia Feed Firm Directs Activities at Small Lot Buyer 8—p. 76
Preston, Rodney (see Burroughs, Dr. Wise)
Reaves, Prof. Paul M.
—Practical Use of Research Is Virginia Meeting Theme 15—p. 74
Thomas, George F.
—Grinding or Particle Size Reductions ..... 15—p. 18
Warden, W. K.
—Field Trial of Zinc Bacitracin in Laying Rations ..... 1—p. 76

BARLEY:
Barley in Poultry Rations ..... 8—p. 10
Comparisons of Meal, Pellets, Crumbles and Repelleting Barley Rations for Swine ..... 15—p. 26

BOARDS OF TRADE:
Boston Grain & Flour Exchange (Officers) ..... 1—p. 38
Cincinnati Board of Trade, Inc. (Officers) ..... 22—p. 72
Los Angeles Grain Exchange (Construction) ..... 29—p. 6
Portland Grain Exchange (Officers) ..... 29—p. 58

CANADA:
Boost in Feed Shipments ..... 29—p. 50
Poultry Numbers Hiked 6% ..... 29—p. 66
Provinces Criticize Wheat Board ..... 29—p. 69

CATTLE FEEDING:
Research in Beef Cattle Feeding ..... 1—p. 59

COCCIDIOSTAT:
G.L.F. Announces Glycamide in Feeds ..... 8—p. 52
Merck Specialists Discuss New Drug ..... 8—p. 8
Salsbury's Describes New Coccidiostat and Growth Stimulant ..... 1—p. 8
Texas Firm Puts Trithiadol in Feed ..... 8—p. 79

COMPANIES:
Abbott Laboratories (Sales Report) ..... 8—p. 79
Agricon Consulting Service (New Establishment) ..... 15—p. 7
Allied Chemical Corp. (Name Change) ..... 29—p. 8
Archer-Daniels-Midland Co. (Financial Report) ..... 1—p. 22
Bemis Bro. Bag Co. (100 Year Celebration) ..... 8—p. 61
Borden Co. (Sales Report) ..... 15—p. 38
Burrus Mills, Inc. (Financial Report) ..... 8—p. 65
Cargill, Inc. (Buys Elevator) ..... 15—p. 51
Central Soya Co., Inc. (New Building, illus.) ..... 15—p. 88
Chickasha Cotton Oil Co. (Adds Bulk Station; Plans Moving) 22—p. 8
Commander-Larabee Milling Co. (Kansas Mill Fire) ..... 8—p. 8
Commercial Solvents Corp. (Sales Report) ..... 15—p. 87
Consolidated Products, Inc. (Kraft Foods Merger) ..... 8—p. 6
Continental Grain Co. (Announces Changes) ..... 22—p. 11
Cooperative Grange League Federation (Albany Explosion) 8—p. 1
Cooperative Grange League Federation (Buffalo Expansion) 22—p. 8
Cotton Producers Assn. (New Plant) ..... 22—p. 92
Dixie Mills Co. (Announces Changes) ..... 1—p. 85
Dixie Mills Co. (Annual Sales Meeting) ..... 1—p. 47
Doane Agricultural Service, Inc. (Layer Lighting System).. 8—p. 7
Farmers Feed Co. (New President Named) ..... 29—p. 51
Food & Drug Research Laboratories, Inc. (New Location) 29—p. 31
Foxbilt, Inc. (Swine Lease Program) ..... 29—p. 10
Fuller Feed & Supply Co. (Offers Egg Program) ..... 29—p. 62
Fulton Bag & Products Co. (New Orleans Plant Sold) ... 29—p. 74
General Mills, Inc. (Moves to New Location) ..... 8—p. 79
General Mills, Inc. (Price Guarantee Removed From Egg Program) ..... 22—p. 1
General Mills, Inc. (To Build Florida Plant) ..... 29—p. 1
Grandin Milling Co. (Mill Fire) ..... 22—p. 61
Hot Spot Detector Corp. (New President) ..... 1—p. 84
Hurst Foods, Inc. (Price Guarantee Removed From Egg Program) ..... 22—p. 1
International Salt Co. (Plans New Main Office) ..... 29—p. 61
Kellogg, Spencer, & Sons, Inc. (Sales Report) ..... 29—p. 7
Kentucky Chemical Industries, Inc. (Lawsuit) ..... 1—p. 8
Ernest E. Killen Feed Co. (Fire) ..... 29—p. 6
Kraft Foods, Inc. (Consolidated Products Merger) ..... 8—p. 6
Merck & Co., Inc. (Announces New Premix) ..... 15—p. 7
Merck & Co., Inc. (Discuss New Drugs at Trade Meetings) 8—p. 8
Nichols, Inc. (President Renamed) ..... 8—p. 79
Nopco Chemical Co. (Builds Illinois Plant) ..... 29—p. 4
Pelco Co. (Builds Pelleting Plant) ..... 29—p. 46
Pfizer, Chas., & Co., Inc. (Financial Report) ..... 29—p. 4
Pfizer, Chas., & Co., Inc. (Pig Disease Treater) ..... 29—p. 31
Poultrymen's Cooperative Assn. (Builds Feed Plant) ..... 1—p. 82
Red Comb Pioneer Mills, Inc. (Lawsuit) ..... 1—p. 8
Rosner-Hixson Laboratories (New Test for Vitamin E) ..... 22—p. 90
St. Regis Paper Co. (Financial Report) ..... 22—p. 54
Salsbury's, Dr., Laboratories (New Coccidiostat and Growth Stimulant ..... 1—p. 8
Stabilized Vitamins, Inc. (New Headquarters) ..... 29—p. 74
Staley, A. E., Manufacturing Co. (Court Case)...15—p. 1, 29—p. 1
Standard Manufacturing Co. (To Enlarge Plant) ..... 22—p. 44
Tobias Enterprises (Offers Egg Promotion Plan) ..... 8—p. 8
Uncle Johnny Mills (Puts Trithiadol in Feed) ..... 8—p. 79
West Virginia Pulp & Paper Co. (Buys Fulton Bag Plant).. 29—p. 74
Willis, J. McKenny, & Son (New Feed Plant) ..... 8—p. 20

CONFERENCES:
California Livestock Day ..... 8—p. 36
Conservation Conference ..... 1—p. 38
Distillers Feed Research Council ..... 15—p. 6
Fact Finding Conference ..... 1—p. 52
Hoosier Turkey Trot ..... 1—p. 78
Iowa Cattle Feeders Day ..... 1—p. 1, 8—p. 45
Iowa Swine Feeders Day ..... 1—p. 1
Maryland Nutrition Conference ..... 22—p. 1, 29—p. 18
Montana Nutrition Conference ..... 1—p. 40
National Farm & Ranch Congress ..... 29—p. 54
National Feeder Finance Credit Group ..... 8—p. 68
New Mexico Cattle Breeders School ..... 22—p. 93
Ohio Broiler & Market Egg School ..... 15—p. 7
Pig Anemia Symposium ..... 22—p. 82
Southern Agricultural Workers ..... 1—p. 10
Utah Nutrition Conference ..... 8—p. 8
Virginia Feed & Nutrition Conference ..... 22—p. 94

CONSTRUCTION:
Central Soya Co. (Ft. Wayne, Ind.) ..... 15—p. 88
Cotton Producers Assn. (Guntersville, Ala.) ..... 22—p. 92
General Mills, Inc. (Tampa, Fla.) ..... 29—p. 1
Los Angeles Grain Exchange ..... 29—p. 6
Nopco Chemical Co. (Peoria, Ill.) ..... 29—p. 4
Pelco Co. (Jefferson, Ore.) ..... 29—p. 46
Poultrymen's Cooperative Assn. (Atascadero, Cal.) ..... 1—p. 82
Standard Chemical Manufacturing Co., (Omaha, Neb.).... 22—p. 44

CONSUMPTION & PRODUCTION:
Feed Production in Kansas City Area ..... 8—p. 1

CORN:
Firm Shows How Supplement Boosts Use of Wet Corn..... 1—p. 53

COTTONSEED MEAL:
New Cottonseed Meal Safe for Layers ..... 8—p. 86

CROPS:
1958 Crop Acreage ..... 29—p. 1

CUBA:
Cuban Molasses Exports ..... 1—p. 46

CUSTOM MILLING:
Costs and the Results of Modernizing Custom Mills (Part 2) 15—p. 36
Efficient Custom Feed Mills Are Prospering (Part 1) ..... 8—p. 70
Flexible Sales and Service Policy Meets Customers' Needs.. 1—p. 26
Grinding and Mixing Charges (Part 3) ..... 22—p. 86
The Human Factor in Custom Milling (Part 4) ..... 29—p. 34

DAIRY FEEDING:
Concentrate Feeding Top Item in Hiking Milk Output.... 15—p. 1

DISASTERS:
Commander-Larabee (Hutchinson, Kansas)—Fire ..... 8—p. 8
Cooperative Grange League Federation (Albany, N.Y.)—Explosion ..... 8—p. 11
Grandin Milling Co. (Jamestown, N.Y.)—Fire ..... 22—p. 61

DISEASES:
Bloat Reduced by Dehydrated Alfalfa ..... 15—p. 8
Cause of Poultry Malady Still Not Officially Identified... 1—p. 1
Controlling Shipping Fever ..... 29—p. 32
Feeding Penicillin for Control of Bloat in Grazing Cattle and Its Effect on Milk Production ..... 29—p. 46
Pig Disease Treater ..... 29—p. 31
Pig Anemia Talks Indicate Value of Iron-Dextran ..... 22—p. 82

DISTILLERS FEEDS:
Distillers Feed Conference ..... 15—p. 6

EDUCATION:
Appropriation for K-State Vetoed ..... 8—p. 40
Feed Technology Department Needs ..... 8—p. 6
Suggests Exchanges Provide Scholarships ..... 15—p. 52

EGGS:
Commercial Egg Output Up in North Carolina ..... 22—p. 72
Egg Buying Attitudes ..... 22—p. 70
New Jersey Launches Promotion Campaign ..... 1—p. 79
Package Egg Programs ..... 1—p. 32
Price Guarantee Removed From GMI, Hurst Egg Program 22—p. 1
Proposes National Egg Group ..... 22—p. 1

ELEVATORS:
Am I Really a Manager? ..... 22—p. 18
Future of Country Elevator ..... 15—p. 47

ENERGY:
Seek New Energy Values ..... 29—p. 51

ENZYMES:
Enzyme Research and Its Significance ..... 1—p. 48
Northwest Feeding Developments ..... 22—p. 10
Use of Enzymes to Improve Utilization of Grains..... 29—p. 64

EXCHANGES (See BOARDS OF TRADE)

FINANCING:
Changes and Outlook in Financing and Contract Farming.. 1—p. 1
Economist Says Illinois Broilers Can't Compete ..... 1—p. 30

FISH PRODUCTS:
Fish Meal Production ..... 8—p. 33
New Type Fish Meal Shows Promise ..... 29—p. 62

GOVERNMENT AID:
South Carolina Denied Livestock Feed Aid ..... 29—p. 6

GRAIN TRADE:
Grain Men Request Halt to Nationalization ..... 22—p. 6
Grain Trade Plan May Break CCC Stranglehold on Markets 15—p. 1
Mixed Effects on Markets Seen in Grain Sales Plan ..... 29—p. 1

GRINDING:
Grinding or Particle Size Reduction ..... 15—p. 18

GRIT:
Grit Sizes in Broiler Feeding ..... 29—p. 40

INTEGRATION & CONTRACT FARMING:
Changes and Outlook in Financing and Contract Farming.. 1—p. 1
Contract Farming Trend ..... 1—p. 56
Demonstrate Against Contract Feeding ..... 1—p. 85
Farmers Union to Ask Legislation Against Integration..... 15—p. 6
Feed Industry Importance to Renderer Stressed ..... 8—p. 48
Firm Uses TV to Air Opposition to Integration..... 8—p. 4
Foxbilt Swine Lease Program ..... 29—p. 10
Integration Will Not Monopolize Cattle Industry ..... 29—p. 54
Limits of Integration Predicted ..... 22—p. 16
Price Guarantee Removed From Egg Program ..... 22—p. 1
Reaction to Package Egg Programs ..... 1—p. 32
Swine Integration Gets Major Airing ..... 1—p. 1
Tobias Offers Egg Promotion Plan ..... 8—p. 8
Trade Changes Noted at Ohio Convention ..... 8—p. 43
Trends in a Changing Agriculture ..... 15—p. 40

IODINE:
New Iodine Source ..... 22—p. 6

LINSEED MEAL:
Linseed Meal for Cattle ..... 8—p. 35

LIQUID FEEDS:
Urea-Molasses Mixture for Cattle ..... 22—p. 93

LITERATURE:
Feed Retailing in Wisconsin ..... 29—p. 28
Plans New "Ag" Dictionary ..... 22—p. 44

LIVESTOCK INDUSTRY:
Iowa Feeder Pig Import Ban ..... 22—p. 1
Livestock Marketing Changes ..... 15—p. 7
Northwest Feeding Developments ..... 22—p. 10
Partially Lift Feeder Pig Ban ..... 29—p. 8
Public Market to Seek Meaty Hogs ..... 29—p. 1

LIVESTOCK NUMBERS:
Calf Crop Shows 2% Drop ..... 8—p. 40
Farm Animal Population by States ..... 29—p. 44
Livestock, Poultry Inventory Jan. 1 ..... 8—p. 1
No Change in Spring Pig Crop Estimate ..... 22—p. 1

MANAGEMENT—BUSINESS:
Am I Really a Manager? ..... 22—p. 18
Dun & Bradstreet Reports on Farm Store Survey ..... 22—p. 61
Public Relations for Small Business ..... 22—p. 20

MANAGEMENT—LIVESTOCK & POULTRY:
Announces New Layer Lighting System ..... 8—p. 7

MERCHANDISING:
Advertising Wins Friends for Feed Company ..... 29—p. 30
Directs Activities at Small Lot Buyer ..... 8—p. 76
Feed Retailing in Wisconsin ..... 29—p. 28
Newspaper, Radio Promotion Sparks Sales ..... 29—p. 46
No Sales Bets Are Missed ..... 15—p. 55
Roadside Display Case Boosts Trade ..... 22—p. 40
Versatility Builds Sales for Feed Firm..... 1—p. 64

MILK:
Milk Prices (Graph) ..... 29—p. 62

MIXING:
Mixers and Mixing ..... 22—p. 48

MOBILE MILLING:
Advertising Wins Friends for Feed Company ..... 29—p. 30
No Sales Bets Are Missed ..... 15—p. 55

MOLASSES:
Cuban Molasses Exports ..... 1—p. 46
"Deionized" Molasses ..... 22—p. 44
Puerto Rico to Sell Molasses at 12¾c ..... 22—p. 4

NEW ZEALAND:
New Zealand Beef Imports Worry Industry ..... 29—p. 8

NITHIAZIDE:
Merck Announces Hepzide as Premix ..... 15—p. 7

NUTRITION:
Reports at the Southern Agricultural Workers Meeting.... 1—p. 10
New Discoveries, Future Possibilities ..... 1—p. 1

PELLETING:
Comparisons of Meal, Pellets, Crumbles and Repelleting Barley Rations for Swine ..... 15—p. 26
Hay "Wafers" for Dairy Cattle ..... 29—p. 42
Northwest Feeding Developments ..... 22—p. 11
Pelleted Feeds for Dairy Cows ..... 22—p. 94
Pelleted Hulls ..... 15—p. 87
Pelleted Concentrates for Dairy Cattle ..... 29—p. 52

PIGMENTATION:
The Economics of Pigmentation ..... 15—p. 82

POULTRY FEEDING:
Low-Protein Diets for Pullets ..... 22—p. 90

POULTRY INDUSTRY:
Broiler Promotion Program ..... 8—p. 81
Budget for Turkey Promotion ..... 1—p. 55
Economist Says Illinois Broilers Can't Compete ..... 1—p. 30
Poultry Industry Value to Delmarva ..... 22—p. 95

POULTRY NUMBERS:
Egg-Type Chick Output Up 10% ..... 22—p. 4
Farm Animal Population by States ..... 29—p. 44
Heavy Breed Turkey Poult Output Down ..... 29—p. 24
Layers, Rate of Lay Reduced ..... 22—p. 7
Livestock, Poultry Inventory Jan. 1 ..... 8—p. 1
Turkey Breeder Hens Down ..... 1—p. 57

PRICES—SUPPLY, DEMAND:
Animal Protein Prices at Highest Level Since 1954..... 1—p. 1
Dairy Support Prices Announced ..... 29—p. 16
Farm Commodity-Feed Price Ratio (Table) ..... 15—p. 14
High Hog Prices Seen ..... 15—p. 4
Lower Poultry Price Trends Seen ..... 8—p. 1
Milk Prices (Graph) ..... 29—p. 62
Predicts Feed, Poultry Prices ..... 8—p. 68
Shortage of Fish Meal Sends Price Up ..... 29—p. 1
Soybean Meal to Hold Strong ..... 8—p. 85
Sustained Cattle Price Seen ..... 15—p. 4

PRODUCTION & MILL OPERATIONS:
Costs and the Results of Modernizing Custom Mills..... 15—p. 36
Efficient Custom Mills Prospering ..... 8—p. 70
Flexible Sales and Service Policy Meets Needs ..... 1—p. 26
Grinding and Mixing Charges ..... 22—p. 86
Human Factor in Custom Milling ..... 29—p. 34
Milling Questions Answered ..... 15—p. 4
Mixers and Mixing ..... 22—p. 48
New Automatic Feed Plan ..... 8—p. 20
No Sales Bets Are Missed ..... 15—p. 55
Versatility Builds Sales for Oregon Firm ..... 1—p. 64

PUERTO RICO:
Puerto Rico to Sell Molasses at 12¾c ..... 22—p. 4

REGULATORY:
California Poultry Proposal Revised ..... 22—p. 4
Custom Mixing Rules Revised in Utah Law ..... 8—p. 74
Feeds With Hygromycin No Longer Under "New Drug" Ruling ..... 1—p. 8
Minnesota Official Describes Proposed Feed Law ..... 15—p. 46
Opposition Increases Against California Poultry Feed Levy.. 15—p. 1

SOUTH AMERICA:
International to Open South American Mill ..... 8—p. 69

STILBESTROL:
Hormones Boost Gains of Lambs on Pasture ..... 29—p. 50
New and Improved Methods Using Stilbestrol in Cattle Fattening Rations ..... 22—p. 32

SWINE FEEDING:
Grows Pig on 2.44 Feed Efficiency ..... 29—p. 4
A Half-Century Look—Report on Progress in Swine Feeding 8—p. 29
Modern Hog Feeds Pay ..... 8—p. 29
Ohio Feeding Trials With Swine ..... 22—p. 15

SURVEYS:
Dun & Bradstreet Reports on Farm Store Survey..... 22—p. 61

TAXES:
New Jersey Feed Tax ..... 29—p. 7

THYROPROTEIN:
Illinois Reports Thyroprotein Test ..... 22—p. 70

VITAMINS:
New Test for Vitamin E ..... 22—p. 90
Work Continues on New Growth Factor ..... 22—p. 97

Eastern Federation To Meet in June

SHERBURNE, N.Y. — Members of the Eastern Federation of Feed Merchants have decided to hold their 1958 convention at Whiteface (N.Y.) Inn rather than in New York City, as in past years.

Early advance interest in the convention, June 8-10, indicates that it will draw the largest registration of feed men ever assembled for a meeting in the Northeast, according to A. W. Carpenter, executive director of the federation.

Convention speakers include Roy A. Foulke, vice president, Dun & Bradstreet, Inc., speaking on general economic trends; Phillip Alampi, New Jersey's secretary of agriculture, discussing national farm policy and its impact on northeastern agriculture; Frank Lovejoy, Socony Mobile Oil Co., giving a luncheon speech on the role which selling and merchandising has in rejuvenating our economy, and Dr. Thomas W. Dowe, recently-named director of the Agricultural Experiment Station, University of Vermont, who will review research results in ruminant nutrition.

A panel symposium on the theme, "Developing Competitive Capabilities" will be moderated by Mr. Carpenter. Panel members will be Carroll J. Caffrey, advertising manager, Beacon Milling Co.; Chester M. Kessler, eastern regional sales manager, Allied Mills, and Burton W. Gregg, dairy specialist, H. K. Webster Co. Mr. Caffrey will cover advertising, Mr. Kessler, merchandising and selling, and Mr. Gregg, farm-level service.

A golf tournament will be featured on the afternoon of June 9. During this time a boat trip, cards and sociability is planned for the ladies. Late in the afternoon there will be a cocktail party, just preceding the annual banquet.

Purdue Seed-Testing Course Announced

LAFAYETTE, IND. — The annual course in seed testing at Purdue University has been scheduled for May 26-June 13.

The course is administered in two parts. Half of the time is spent on elementary botany needed by seed analysts, consisting of field trips where plant identification, weeds and weed control are studied. The remainder of the time is spent with the staff of the Indiana state seed laboratory studying the official methods of making purity and germination tests, noxious weed seed identification, etc. College credit may be obtained if desired.

Anyone interested in the training should contact A. S. Carter, director of seed control and state chemist services, department of biochemistry, Agricultural Experiment Station, Lafayette, Ind.

PREMIUM MAR 31 1958 KY.
QUALITY MAR 29 A.M. 1958 KY.
BEST MAR 31 1958 TEX.
PROTECTION 1:5 PM MAR 29 1958 KANS.
QUICK MAR 29 1958 W VA
SUPPLY MAR 28 3:30 PM 1958 N.C.
SELLS APR 1 1 PM 1958 ARIZ
RAY MAR 29 5 PM 1958 NN.
EWING MAR 29 5 PM 1958 NEBR.
MIX MAR 29 P.M. 1958 LOU

QUALITY GOES IN
THE Ray Ewing COMPANY
BEFORE THE NAME GOES ON
PASADENA
BOONE, IOWA
FORT WORTH, TEXAS
COUNCIL BLUFFS, IOWA
LANCASTER, PENNSYLVANIA

NOW! a ration for
and every ration a
dual action PRO-

Don't sell more antibiotic protection than your growers—turkey, broiler, laying flock or swine—need! Recommend feeds fortified with levels of PRO-STREP designed to produce specific results under varying farm conditions.

Fit the ration to the farm. There is a PRO-STREP level for every ration—PROFITOPPER

	SWINE		CHICKENS *(Layer and Breeder Rations)*	
Penicillin		Penicillin is absorbed and carried through the blood stream to every part of the body to effectively check pathogenic, gram-positive organisms. Penicillin also stimulates feed consumption, enhances weight gains and feed conversion. Grower is able to market more uniform pigs.		Penicillin is absorbed into the bloodstream of the growing or mature bird. It is carried to every part of the body and is effective against harmful, gram-positive organisms. Penicillin is particularly helpful at times of stress in maintaining or increasing hatchability of fertile eggs.
Streptomycin		Effective for prolonged periods of time in the intestinal tract, streptomycin acts against the gram-negative bacteria so often responsible for bacterial enteritis ("necro"). *Streptomycin will not interfere with the action of beneficial intestinal flora.*		Streptomycin is slowly absorbed from the intestinal tract. It provides "crop-to-vent" protection against pathogenic, gram-negative organisms. Streptomycin will not interfere with the action of beneficial intestinal flora.
A PRO-STREP Level for Every Ration	**LOW LEVEL—25 Gm./ton.** Feed continuously to stimulate growth, improve feed efficiency, increase feed intake and promote better uniformity of gains. **MEDIUM LEVEL—50 Gm./ton.** Feed continuously until pigs are 50-75 pounds to: prevent bacterial swine enteritis; stimulate growth; improve feed efficiency; stimulate feed intake; and help promote better uniformity of gains. If outbreaks of enteritis occur, feeds containing 100 Gm. of PRO-STREP should be used. **HIGH LEVEL—100 Gm./ton.** To treat bacterial swine enteritis feed rations fortified with PRO-STREP for 4-5 days or until symptoms disappear. PRO-STREP at the 100 Gm. level also may be used until pigs are 50-75 pounds to: stimulate growth, improve feed efficiency, increase feed intake and assure better uniformity of gains.		**LOW LEVEL—25 Gm./ton.** Feed continuously as an aid in maintaining or increasing egg production and to stimulate growth and improved feed efficiency. In the presence of disease, rations containing 100 Gm. are recommended. **HIGH LEVEL—100 Gm./ton.** The following claims may be listed on your tags when PRO-STREP is fed at high levels to chickens: **a.** Reduce mortality and hasten recovery from C.R.D. **b.** Treat nonspecific infectious enteritis. **c.** Maintain feed intake and weight gains during C.R.D. and nonspecific infectious enteritis. **d.** Aid in maintaining or improving hatchability (of fertile eggs). **e.** Aid in maintaining or improving egg production. **f.** Prevent early chick mortality due to organisms sensitive to penicillin and streptomycin. **g.** Improve feed efficiency as related to egg production or weight gains. *Suggested feeding schedules:* **1.** Feed the first 10 days—then 3-5 days during, or immediately after, such stress factors as Newcastle disease or bronchitis vaccination, debeaking or housing pullets. **2.** Feed for the first 10 days and then for 3 days out of every week until birds are marketed. **3.** Feed continuously in case of disease outbreaks.	

MERCK & CO., INC. · CHEMICAL

Examine the **CLAIMS**—Check the **RESULTS**—
Compare the **COST** of PRO-STREP
with other broad-spectrum or single drug,
narrow-spectrum antibiotics.
You can't recommend a more effective
antibiotic supplement at less cost!

One Call—One Order—One Result—Customer Satisfaction
There is a Merck microingredient for your every formulation need. Ask the Merck Man about the complete line of antibiotics, vitamins, amino acids, multivitamin mixtures and coccidiostats with THE MERCK MARGIN OF SURETY!

MERCK & CO., INC.

every need—
PROFITOPPER with low-cost
-STREP®

(A combination of two antibiotics —procaine penicillin and streptomycin sulfate—in a ratio of 1:3)

rations that will mean greater customer satisfaction and more repeat sales for you.

Here's how the dual action of Penicillin and Streptomycin in PRO-STREP helps to improve feed efficiency, fight disease and enhance growth in turkey, broiler, layer and swine rations. A Level for Every Need—Every Ration a PROFITOPPER!

CHICKENS *(Starter and Grower Rations)*

Penicillin is absorbed into the chick's bloodstream and carried to every tissue and organ in the body. Penicillin is effective against the gram-positive organisms. Many of the bacteria susceptible to penicillin are incriminated in secondary and subclinical infections in young chicks.
Penicillin also has a profound effect on stimulating growth, enhancing effective feed conversions and stimulating feed consumption.

Streptomycin is slowly absorbed from the intestinal tract. It provides "crop-to-vent" protection against harmful, gram-negative organisms. *Streptomycin will not interfere* with the action of beneficial intestinal *flora.*

LOW LEVEL—25 Gm./ton. Feed continuously to stimulate growth of chicks and to improve feed efficiency.

In presence of disease, recommend rations containing 100 Gm. of PRO-STREP.

HIGH LEVEL—100 Gm./ton. The following claims may be listed on your tags when PRO-STREP is fed at high levels to chickens:

a. Reduce mortality and hasten recovery from C.R.D. **b.** Treat nonspecific infectious enteritis. **c.** Maintain feed intake and weight gains during C.R.D. and nonspecific infectious enteritis. **d.** Aid in maintaining or improving hatchability (of fertile eggs). **e.** Aid in maintaining or improving egg production. **f.** Prevent early chick mortality due to organisms sensitive to penicillin and streptomycin. **g.** Improve feed efficiency as related to egg production or weight gains. *Suggested feeding schedules:*

1. Feed the first 10 days—then 3-5 days during, or immediately after, such stress factors as Newcastle disease or bronchitis vaccination, debeaking or housing pullets. 2. Feed for the first 10 days and then for 3 days out of every week until birds are marketed. 3. Feed continuously in case of disease outbreaks.

TURKEYS

Penicillin, absorbed into the bloodstream, affords maximum protection in all the tissues and organs of the body against the effects of gram-positive pathogens. Penicillin also is valuable in promoting economical weight gains in poults.

Streptomycin provides "crop-to-vent" protection against gram-negative organisms in the bird's intestinal tract. Slowly absorbed from the intestines, *Streptomycin does not interfere with the action of beneficial intestinal flora.*

LOW LEVEL—25 Gm./ton. For best results turkeys should be placed on low levels from hatching until they are 16-20 weeks of age. Low-level antibiotic rations will stimulate growth and improve feed efficiency. In the presence of disease, or on farms where the disease level is high, use rations containing 100 Gm. of PRO-STREP.

HIGH LEVEL—100 Gm./ton. At this level rations fortified with PRO-STREP will: treat bluecomb and infectious sinusitis; help maintain weight gains during outbreaks of these two diseases; prevent early mortality of poults due to organisms sensitive to either streptomycin or penicillin; help reduce losses following periods of stress such as vaccination, debeaking, chilling, moving, overheating; improve weight gains and feed efficiency in poults even in the presence of disease.

DIVISION · RAHWAY, NEW JERSEY

Do you know about GLYCAMIDE*?

Why not find out about adding GLYCAMIDE to your feeds—a new product of Merck. GLYCAMIDE is the universal coccidiostat for *broilers* and *replacement chicks* for laying and breeding flocks. It is the safest coccidiostat so far discovered.

*Trademark of Merck & Co., Inc. for glycarbylamide.

PRO-STREP

WITH THE MERCK MARGIN OF SURETY

Women Also Have Some Ideas to Build Business

By Al P. Nelson

When Joe Brooks neared his home that spring evening, he saw many cars parked at the curb on both sides of the street in the vicinity of his house. This surprised him until he remembered that this was the afternoon Mary was scheduled to have the Ladies' Aid. Usually the women were gone by 6 o'clock, but if the neighborhood news was especially "spicy" and the gemutlichkeit right, these meetings lasted until husbands came home from work.

"Just look at that," Joe said to himself. "It takes the Ladies' Aid groups to get turnouts. Why can't our feed dealer clubs get turnouts like that? Maybe we should gossip a little more like the ladies do."

He was about to turn back toward the mill when his two sons, Joe, Jr., and Jimmie, came rushing around the corner of the house and spotted him. The 10-year-old boys looked unhappy.

"Gee, Dad, when are those biddies going to go home, so we can have our supper?" asked Joe, Jr. "They've been here three hours already."

Joe Becomes Serious

"Don't call a woman a biddy, young man," Joe said, sternly. "Show respect for ladies."

"Well, can't the three of us go to the restaurant and eat?" asked Jimmie. "Then we won't bother them and they can go on talking."

Joe shook his head. "No, we are men and we must face up to our responsibilities. Mother is probably expecting us to come and thus give the signal for the ladies to go home. I was about to go back to the mill myself when I saw all those cars, but that wouldn't be good public relations. A good businessman, boys, always tries to meet people and be friendly to them. You never know when you will make a customer out of an acquaintance. And some of those ladies might be wives of farmers!"

"Gee, Dad, you have to be using your head all the time when you are in business, don't you?" asked Joe, Jr.

An Admonishment

His father smiled. "That's what a head is for, my boy, not just to grow hair on. Come on, let's go into the house together."

They entered the kitchen and banged the door quite loudly. Instantly the busy-bee conversation in the living room quieted like a turned-off phonograph record. Joe and his sons walked right through the kitchen and into the dining room and into the living room.

About 10 women sat with coffee cups long empty. One, Mrs. Gerharty, rose to her feet. "Oh, I must be going now. Mr. Brooks, your wife makes the most wonderful cherry pie. It's the best I've ever tasted."

Joe grinned. "I think so, too. Only trouble is she won't bake it seven times a week."

"Oh, you men!" trilled Mrs. Gerharty. "You always want to eat too much. Well, goodbye, Mary. I've had a most interesting afternoon."

After the women had gone, Mary sat down and said, "Whey, it was an interesting afternoon, but they stayed too long. Thank heavens you came."

Joe winked at the boys. "What did I tell you? She likes us best of all."

"Joe," Mary said, slipping off her

ANGER
The lading of this car has been
FUMIGATED or TREATED
with
DOW METHYL BROMIDE
BEFORE UNLOADING, open both doors and
DO NOT ENTER until car is free of gas.
REMOVE ALL POISONOUS MATERIAL
before reuse of empty car.

Sure sign of protection against insect and rodent damage

This sign says more than "stay out . . . Dow Methyl Bromide at work". It tells you that inside a valuable load of feedstuffs is getting thorough, fast-acting protection against insects and rodents.

Whether you fumigate under tarpaulins, in chambers or in boxcars, methyl bromide provides complete control of all insects, everywhere in the stored commodity. None escape the penetrating power of this effective fumigant.

And when you order Dow Methyl Bromide, you're sure of getting this superior fumigant at its best. Manufactured under rigid quality control standards, Dow Methyl Bromide comes to you in clean, moisture-free cylinders. There are no impurities to contaminate stored goods or to foul fumigating equipment.

Next time you fumigate, make sure you get all the protection you pay for. Start by writing to Dow for complete information on Dow Methyl Bromide, and the name of your nearest qualified fumigator. THE DOW CHEMICAL COMPANY, Fumigant Sales Section, Midland, Michigan.

YOU CAN DEPEND ON DOW

Question:

Who sells DOW Methionine for healthier, handsomer animals?

Answer:

BOWMAN FEED PRODUCTS, INC.
Holland, Mich.

shoes and wiggling her toes. "You must wait for supper a little while. I have a business idea to tell you."

"Business idea!" complained Jimmie. "Dad, you and Ma are always talking business. Can't you get a regular job like other men have. They don't work half so hard. They have more time for their families."

Joe chuckled. "Come on now. I take you guys fishing and hunting and to Boy Scout doings at the county seat and lots of other places. I do my share. Rinse the Ladies' Aid dishes if you're so antsy. I want to hear Mother's idea."

Joe, Jr., pinched Jimmie and they went into the kitchen. "You and your big mouth," he snapped at his brother. "If you'd gone along with Dad we wouldn't have to rinse those dishes."

"Aw, I'm hungry," whimpered Jimmie.

"What's the idea you have, Mary?" asked Joe eagerly. "You know me when it comes to traffic builders and cash register ticklers."

Mary stretched out comfortably on the sectional. "Joe, my cherry pie got the gals to talking. One woman, Mrs. Pete Jeffers, used to live at Green Bay, Wis. She claims there's a combination drug store and bakery up there that gives away a free pie every week, and has been doing this for over 20 years. The owner prints the name of the winner in his ad and the winner has to call for the pie. It builds store traffic."

"I should think it would," Joe replied. "And it's not an expensive idea, either. We don't sell pies, though."

"But we do sell flour, Joe. And if we can up the store traffic some of those people will buy feeds and fertilizer."

"I suppose so."

Mary Shows Enthusiasm

Mary seemed eager. "Joe, let's try this idea. I'll bake not one but five cherry pies that you can give away every Friday. We can select names of farmers from the phone book, print those names in the ads and ask those farmers to come in and claim their free pies. And, of course, we'll mention the pies are baked with the flour we handle. . . . "

"Okay, I'll do it. I can see where it will bost store traffic. But how will we select the names to print in the ad?"

Mary suddenly became thoughtful. "That's where we have to be smart, Joe. We'll print names of three farmers who are customers and two farmers who are not customers. In that way we'll bring new potential customers into our store and also satisfy the regular customers."

"Hey, I like that new customer angle," Joe said quickly. "Mary, what I like about you being a vice president of the company is that you think of business ideas after working hours, too."

"After working hours!" Mary echoed. "I know that if I didn't come up with a good business idea now and then you'd start griping plenty. So I have to think any old time I get a chance."

"Oh, no, I'm not such a tyrant as that, am I?" Joe said, playfully.

"Well—"

Jimmie, looking into the living room from the kitchen doorway tiptoed back to his brother, Joe, Jr., rinsing dishes in the sink.

"Aw, Dad is kissing Mother," he said, disgustedly. "Now we'll have to wait still longer for something to eat. This just isn't our day, Joe!"

Joins Walnut Grove

SOUTH ST. PAUL, MINN.—D. P. Mossberg, Northwest manager of Livestock Conservation, Inc., has resigned to accept a position in sales management with the Walnut Grove Feed Co., Atlantic, Iowa. In his new duties, he will be responsible for sales development in Martin, Faribault, Watonwan, Blue Earth and Brown counties in Minnesota.

. . . FOR MORE PROFIT ON EVERY TRIP . . .

DELIVER BOTH!

SACKS AND BULK

SIMONSEN U-14

FEED UNLOADER

★ Converts any truck body to combination delivery.
★ Completely hydraulic—no gear boxes or shear pins.
★ Front end delivery auger reaches 21 ft. up—unloads up to 600 lb. min.
★ Bottom auger has variable speed drive for selection of correct unloading speed.

Here's the conversion unit with all the features you want to assure years of trouble-free operation. So why wait. Equip your truck now to deliver both sacked and bulk feeds and show more profit every day. Write today for complete information.

SIMONSEN MANUFACTURING CO.
QUIMBY Dept. F. S. IOWA

NEW MAZOFERM™

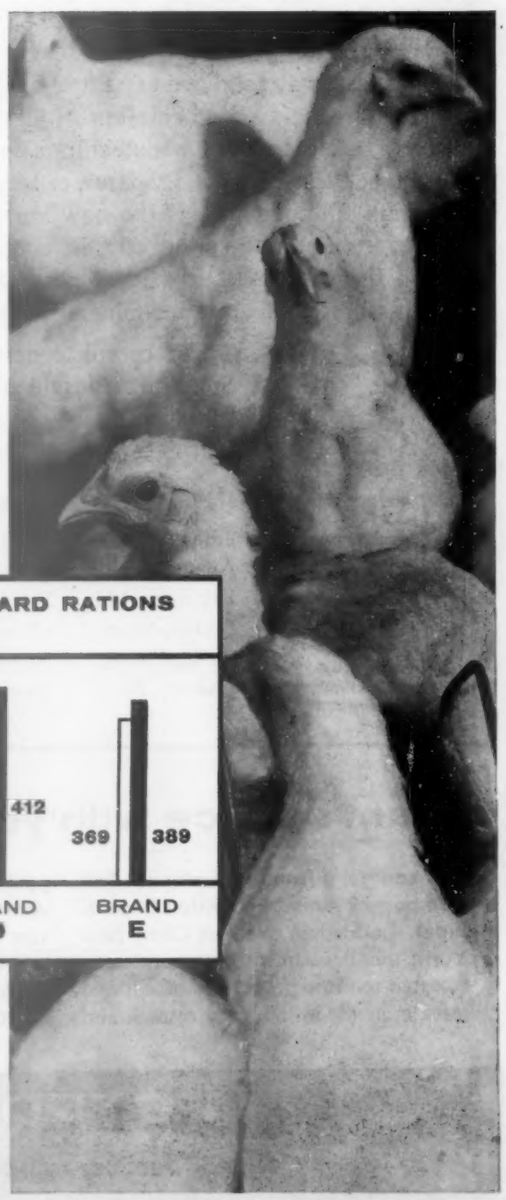
CORN FERMENTATION CONDENSED SOLUBLES

improves the performance of high quality commercial broiler rations

Rations containing adequate levels of fish and whey factor activity are improved in performance when MAZOFERM is added. Evidence of this important fact are the results of tests shown in the chart below.

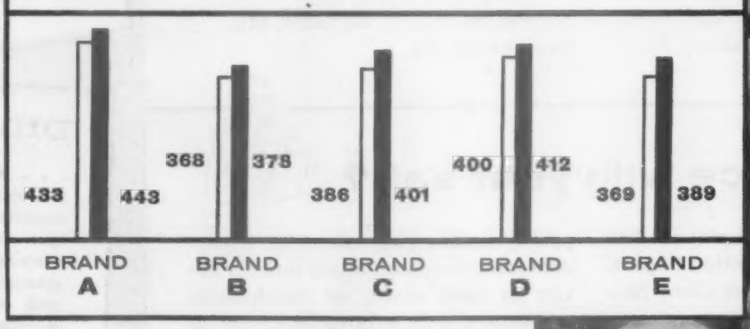
Extracted from corn in the steeping process, MAZOFERM Corn Fermentation Condensed Solubles contains water soluble unidentified chick growth factors which are amplified by the fermentation process in MAZOFERM production.

MAZOFERM completely replaces whey factor materials and fish solubles. MAZOFERM permits substantial reduction of fish meal levels. An economical source of unidentified chick growth factors, its use enhances dollar returns over feed cost by $25 to $30 per 1000 broilers.



HOW MAZOFERM IMPROVES STANDARD RATIONS

Weight (gms.) gained in 21 days



Results of tests of five well-known brands of broiler feed with and without MAZOFERM on randomized 6-day-old White Vantress cross cockerels. Bars represent weight increase using standard brand feed (white bar) and same brand with MAZOFERM (black bar). Average increase due to MAZOFERM was 3.5%.

Our new 28-page booklet summarizes experimental data covering three years' work. Write for your copy today.

CORN PRODUCTS SALES COMPANY, 17 Battery Place, New York 4, N.Y.

Egg Shell Quality
begins with
EGGSHELL BRAND
Oyster Shell

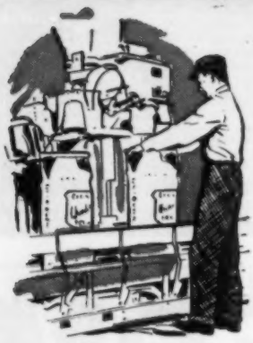
Poultrymen are being told the EGGSHELL BRAND story in advertisements and point-of-purchase displays wherever EGGSHELL BRAND Oyster Shell is sold.

Take advantage of this complete promotional program. Sell the really digestible, soft reef shell that has become the standard of the industry.

EGGSHELL BRAND OYSTER SHELL
a product of
OYSTER SHELL CORPORATION
BALTIMORE, MARYLAND

Farm and Feed Salt NEWS

FROM INTERNATIONAL SALT CO., INC.



Your summer feeds need more salt and trace minerals

With dairy cattle consuming more pasture grass during the summer months, they depend heavily on your formula feeds for the correct salt and trace-mineral content in their diets. They need more salt to balance additional water intake that results from eating pasture grasses containing up to 80% moisture. Also, dairy cattle need more trace minerals because pasture grass is very often deficient in one or more trace minerals.

The surest way to give dairy cattle on pasture enough salt and trace minerals is to mix added amounts of Sterling Supermix Blusalt in their feeds. In fact, many feed manufacturers now mix 40 pounds of Supermix Blusalt per ton of feed. Prepared expressly for feed mixing, Sterling Supermix Blusalt contains the now known correct amounts of manganese, iron, sulfate sulfur, copper, cobalt, iodine and zinc—blended with high-quality salt, the ideal natural carrier. An anti-separation agent assures uniform trace-mineral distribution in your feeds.

For complete descriptive material on Sterling Supermix Blusalt, plus a guaranteed analysis of this special feed-mixing salt, contact International Salt Co. There's a district office near you.

INTERNATIONAL SALT CO., SCRANTON, PA.

Sales Offices:	Cincinnati, O.	New York, N. Y.
Atlanta, Ga.	Cleveland, O.	Philadelphia, Pa.
Baltimore, Md	Detroit, Mich.	Pittsburgh, Pa.
Boston, Mass.	Memphis, Tenn.	Richmond, Va.
Buffalo, N. Y.	Newark, N. J.	St. Louis, Mo.
Chicago, Ill.	New Orleans, La.	

Want service with your salt?

You can get it from International Salt Company's Animal Nutrition Department. Located in Watkins Glen, New York, this department does continuing research into the proper use of salt and trace minerals in modern livestock and poultry feeding programs. This is *your department* to consult at any time for advice on your mixing or feed-formula problems, and for information on any of the Sterling Salt products. International Salt Co., Inc., Scranton, Pa.

STERLING SALT

CONGRATULATIONS AFMA!

International Salt Company salutes the American Feed Manufacturers Association for its 50 years of service to the feed industry. We are proud to be a member of the Association.

50 YEARS OF afma SERVICE
AMERICAN FEED MFRS. ASSN.

RETAIL OUTLETS SHOW SUMMER SALES GAIN

. . . when they handle the popular Sterling Farm Salt products for resale

During the pasture season, demand increases for trace-mineral salt to feed free choice. Order these profitable Sterling Salt products now.

Sterling Blusalt: In colorful, bright-blue 100- and 50-lb. bags, 50-lb. blue blocks and 4-lb. blue Liks.

Sterling Green'salt: Trace-mineral salt plus 10% phenothiazine in 25- and 100-lb. green-and-red bags.

Sterling Granulated Salt: In 100-lb. bags. Also pressed into 50-lb. blocks and 4-lb. Liks.

DID YOU KNOW?

. . . that University of Wisconsin veterinary scientists report that in one excellent dairy herd, continuous low-level feeding of phenothiazine for worm control in growing heifers raised subsequent milk production by 10%, and annual fat production by an average of 50 pounds.

. . . that the number of milk cows was down 2% last year, for the 12th decrease in 13 years. Also down was the number of farms keeping milk cows. On the other hand, size of herd per farm continued up . . . and milk per cow reached a record 6,162 lbs. in '57—up more than 20% in 10 years!

Systemics Effective For Grub Control, Iowa State Reports

AMES, IOWA — Systemic insecticides for control of cattle grubs showed almost complete control in Iowa State College trials conducted in 1957 and 1958. Dr. Earle Raun and Dr. John B. Herrick, college entomologist and veterinarian, respectively, have announced.

The preliminary reports on these investigations, they said, look promising. The college researchers reported that one of these trials was conducted this spring on cattle fed by the Rath Packing Co. of Waterloo.

Dr. Raun and Dr. Herrick said the systemic grubicides were used in several herds in Iowa last year. The reports of the use of the chemical appeared satisfactory. Only a small amount of the chemical was available last year, and that was in bolus form. A greater amount will be available this year, they pointed out.

Feed additive and spray forms of the grub killer are being investigated for efficiency. However, they will not be available for use in the near future. The bolus form is still the only form available now for general use.

The researchers said the new systemic insecticides offer, to date, one of the most effective grub-control products. The product works most effectively when it is administered at the time the grub is in the early stage of its migration through the animal's body. Therefore, they said, the most effective time to treat cattle by this method is during late summer and early fall.

Iowa State College research tests are continuing this year, and results of the 1958 trials are not yet completed. The college men said preliminary reports indicate duplication of last year's results.

Last year's experimental work with 77 head of cattle moderately infested with cattle grubs showed that the systemic insecticide, administered 110 days before slaughter, controlled 94.7% of the grubs. Better weight gains and feed conversion were observed in the treated groups than in the control groups.

The 77 treated cattle gained an average of 264 lb. more per head than the 77 untreated cattle. The treated used only 979 lb. of feed per 100 lb. of gain compared to 1,033 lb. of feed per 100 lb. of gain on untreated cattle. Cost of gain was $1.52 lower per 100 lb. for the treated cattle.

The researchers said the entire cattle industry is interested in the advent of more efficient grub control. These pests account for one of the biggest losses suffered by the cattle industry. Hide and carcass damage in a "grubby" animal accounts for a loss of about $10 per head.

Poultry Meeting at Cornell Scheduled

ITHACA, N.Y.—Problems of poultry production will be taken up at Cornell University July 8-9 in a two-day session for poultrymen. The meeting is sponsored by the Cornell colleges of agriculture and veterinary medicine.

According to the sponsors, about 1,000 farmers are expected to attend. There will be general sessions for all poultrymen, plus special meetings for those specializing in layers, broilers and turkeys.

Speakers will include specialists from Cornell and other universities, the U.S. Department of Agriculture, representatives of industry and farmers.

The initial speech will be given by Frank D. Reed, department of poultry husbandry, University of Maine, who will tell "what producers will be in business 10 years from now."

The affair will include crowning a 4-H member as New York State Poultry queen, choosing a "poultryman of the year" and the initiation of several members into the National Good Egg Club. These ceremonies will take place at a duck barbecue the evening of July 8.

Chick-n-Que Program Gets Good Reception

RICHMOND, VA.—Food store executives are giving the 1958 version of Chick-n-Que a "welcome reception," the National Broiler Council announced as representatives from the companies in the related-item promotion began contacting the key leaders of the food retailing industry.

"Some 60,000 stores used Chick-n-Que last year," Frank Frazier, executive vice president of the council, said, "and if the enthusiasm shown in the first calls is an indication, we should top that number easily this year."

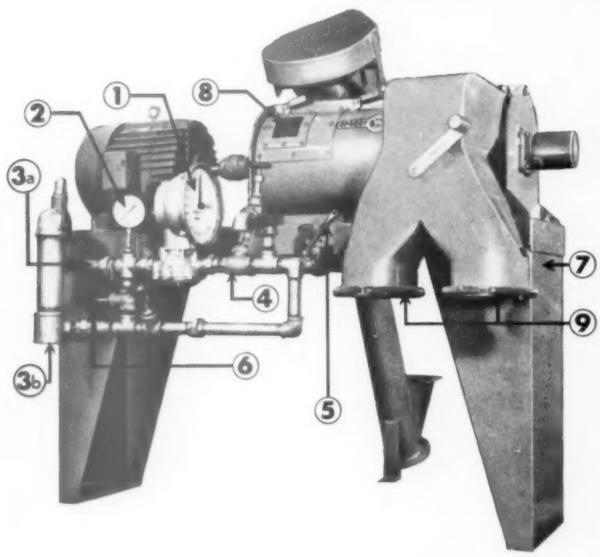
Mr. Frazier pointed out several advantages the council has in taking the Chick-n-Que promotion to the food trade this year. He said its success last year is getting further support this year from stronger advertising, better merchandising materials and a mass display piece, retailers indicated they would like to have.

Use K-M IN BABY CHICK DRINKING WATER!
Wise POULTRYMEN use
HILLTOP LABORATORIES
— Aids for Poultry —
for Greater POULTRY PROTECTION!
WRITE FOR CATALOG AND PRICE LIST!
HILLTOP LABORATORIES

OVERALL **OUTLOOK** on industry developments comes to you weekly . . . while it's still news in FEEDSTUFFS

SW Data Sheet — Sprout-Waldron

Molasses Feed Mixers



control equipment

1. CNV Molasses Meter with 10" dial
2. Pressure Gauge
3a. Supply Pipe from storage
3b. Return Pipe to storage
4. Calibrated Flow Control Valve
5. Quick Opening Valve
6. Recirculating Valves
7. Heavy Welded Steel Frame
8. Plastic Observation Window
9. Streamlined Two-Way Bagger

"CUSTOMIX" Cold Molasses Feed Mixing Unit

A dependable, efficient, high-speed cold molasses feed mixer that really mixes the molasses "INTO" the feed . . . not just "ON" the feed. It is easy to install, operate, control and service . . . requires low horsepower and maintenance costs . . . gives a capacity of three to six tons of quality feeds.

specifications

Length Overall (Maximum)	7' 0"
Depth Overall	6' 6"
Height Overall	6' 2¼"
Height to center of shaft	4' 1¼"
Capacity range	3 to 6 tons per hour
Horsepower range	10 to 15 HP

construction details

The "CUSTOMIX" is a complete package unit assembled at the factory for quick and easy installation. It is necessary only to connect a pipe from the molasses pump to the pressure relief valve and arrange for feeding the premixed dry ingredients to the mixing cylinder.

The mixing cylinder with two-way bagger, including the agitator and direct-connected motor drive, are securely mounted on a sturdy fabricated steel frame. The drive and agitator are perfectly balanced to prevent vibration. The molasses control equipment . . . valves, gauges and molasses meter . . . all are assembled on this same frame in convenient sight and reach of the operator.

Heavy spiral ribbons convey the incoming feed toward rapidly revolving beater arms while a stationary distributing ring sprays the molasses into the feed. The cast steel beater arms have long-wearing, replaceable tips and travel the feed toward the discharge spout. The finished feed is sacked from a two-way bagger, which has smooth rounded flanges with spring clamps for holding the bags securely.

Mixers for any feed milling requirement are available from Sprout-Waldron.

FD/105

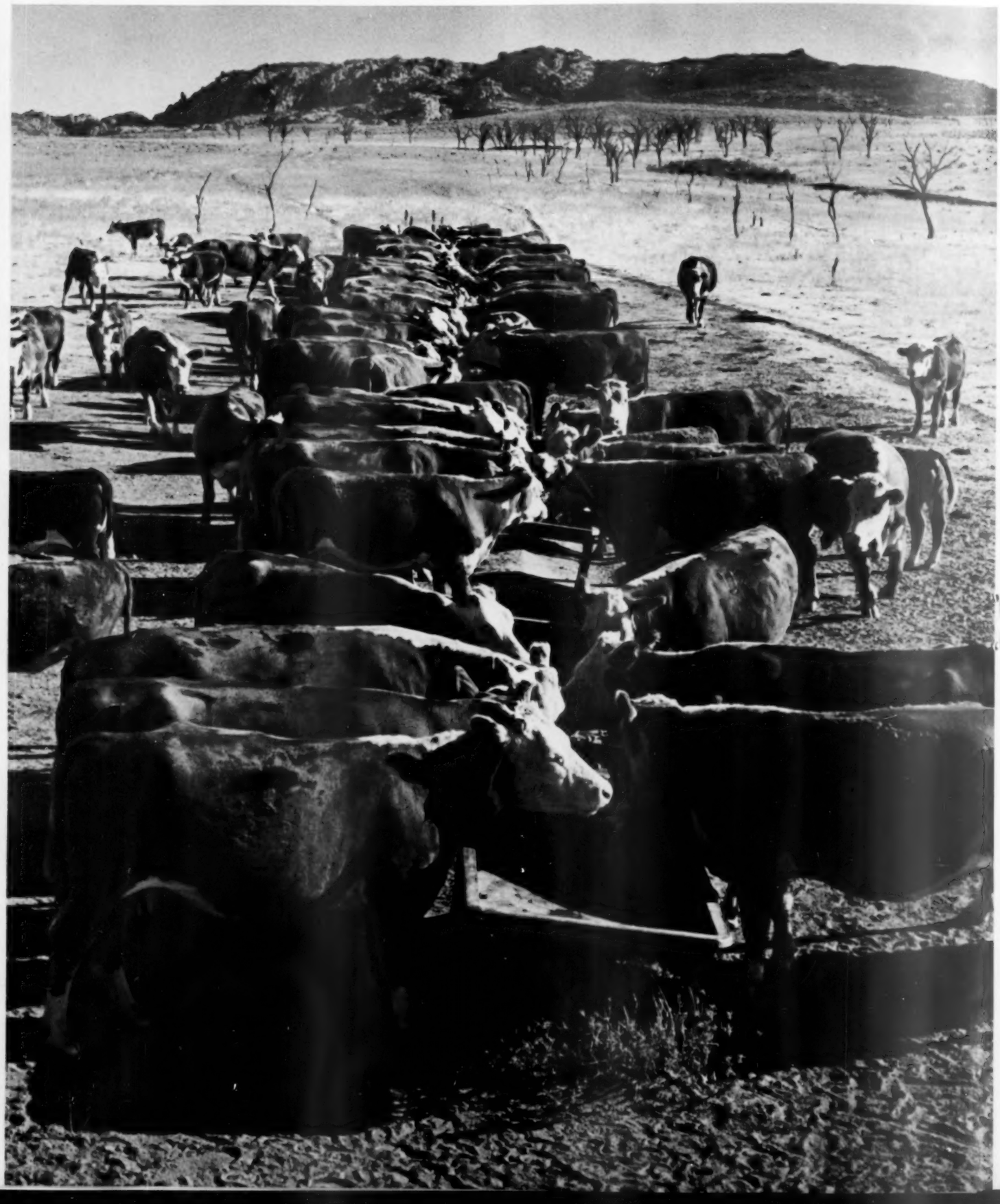
SPROUT-WALDRON

The Best in Processing Equipment Since 1866

MUNCY, PENNSYLVANIA, U.S.A.

Modern equipment for—size reduction • mixing and blending • bulk handling equipment • size classification • pelleting and cubing

Range Supplements supplying 75 mg. Terramycin per head per day help calves or yearlings winter better . . . produce healthy, thrifty gains. Brood-cow supplements with Terramycin help get cows in condition to drop healthy, fast-gaining calves . . . produce plenty of nourishing milk. Summer-pasture supplements containing Terramycin help boost gains and feed efficiency . . . bolster deficiencies in dried-up pastures.



Feedlot Supplements supplying 75 mg. Terramycin per head mean up to ¼ lb. more of gain per day . . . feed efficiency improved 8% . . . bloat reduced . . . fewer liver abscesses. Feeders report improved bloom; less foot rot as well.

Conditioning Feeds prevent, control Shipping Fever losses. Tests show Terramycin reduced the number of Shipping Fever cases 80% . . . started calves on feed faster, healthier.

How Terramycin® helps sell beef-feeding programs

BRAND OF OXYTETRACYCLINE

Terramycin in beef feeds can supply the added sales appeals needed for opening the gate to increased tonnage. It offers sales advantages in feeds for cattle of all ages . . . helps your customers get better, thriftier, healthier performance than ever before.

What are these feeds? They are high-quality beef feeds to which Terramycin has been added at recommended levels. Range, pasture, brood-cow and fattening supplements supply 75 mg. of Terramycin per head per day for peak performance. Creep feeds contain 40 gm. Terramycin per ton of feed and Conditioning Feeds supply the 500-gm.-per-ton level.

What will they do? When used continually at the 75 mg. nutritional level—on range, pasture or in feedlot—they promote faster gains, better feed efficiency, and prevent bloat. At the 500 gm. level, they prevent, control costly diseases such as Shipping Fever.

See how they'll sell. Add the gain-boosting, profit-making Terramycin benefits to your present beef-feed sales appeals. See how they can help you interest more cattlemen in your beef-feeding programs . . . help you increase beef-feed tonnage.

Your Pfizer representative has complete details for every type of feeding program—plus plenty of factual case histories on Terramycin's performance in the beef country. See him soon.

Creep Feeds containing 40 gm. Terramycin per ton start calves faster, healthier. Tests show Terramycin helped increase gains up to 14%; feed efficiency, up to 26%.

Pfizer

CHAS. PFIZER & CO., INC.
World's largest producer of antibiotics
630 Flushing Ave., Brooklyn 6, N. Y.
6460 W. Cortland St., Chicago 35, Ill.
7600 Ambassador Row, Dallas 7, Texas
1151 Chattahoochee Ave., N. W., Atlanta 2, Ga.
1500 16th St., San Francisco 3, California
In Canada: 5330 Royalmount Rd., Montreal 9, P.Q., Canada

Researchers Report On Feeding Trials With Pelleted Rations

FORT COLLINS, COLO.—A series of feeding trials measuring the effects of various pelleted rations for lambs was reported recently by Colorado State University researchers.

The trials included studies into the effect of size of pellet, some new rations in pellet feeding, rumen observations, mineral additions and a comparison of suncured and dehydrated alfalfa pellets in lamb feeding.

In one group of trials, during 1956 and 1957, reported on by Dr. A. L. Esplin and C. D. Story of the University staff, it was found that lambs can apparently utilize large pellets—1 in. by ¾ in. by 1¼ in.—as well as small pellets ¼ in. in diameter and ¼ in. in length.

The two researchers reported further that milo and alfalfa in equal parts in a pellet gave as large and as efficient gains as corn with alfalfa hay in equal parts in a pellet. They also reported that corn-cob-meal with a liquefied protein supplement patented by the Great Western Sugar Co. and alfalfa in a pellet form gave larger gains with similar efficiency as corn and alfalfa in equal parts in a pellet. The liquefied protein consists of 68% dry matter, 34% crude protein, 32% NFE, 14% ash and 46.8% T.D.N.

Dehydrated alfalfa with corn in equal parts in a pellet gave smaller gains with similar efficiency when compared to corn with alfalfa hay in equal parts in pellets, they said.

In a study of ruminal parakeratosis in lambs fed the various rations, they found that lambs fed the corn-cob-meal, liquid protein and alfalfa hay pellets had only a few rumens with evidence of parakeratosis, while lambs fed milo and alfalfa pellets had about a third of the rumens with evidence of the disease and most lambs fed corn with dehydrated alfalfa or with alfalfa hay in pellet form showed evidence of parakeratosis.

Another pellet feeding experiment, reported by Dr. Esplin and A. J. Hazle of the Colorado State University staff, was made to measure the effect of the addition of trace minerals and limestone to the diet of lambs fed pellets consisting of corn and alfalfa.

They found that the addition of trace minerals with and without 10 or 20 lb. of ground limestone or 11 lb. of dicalcium phosphate to pellets did not increase gains but did save feed in producing gains and tended to reduce fence chewing. Two pounds of trace minerals and 11 lb. of dicalcium phosphate per ton produced the most efficient gains.

They reported further that pellets made with alfalfa ground through a ¼-in. screen made larger and cheaper gains than similar pellets made with alfalfa ground through a 1/16-in. screen. As an added part of the experiment they fed a commercial pellet containing about 46% mixed grain and 54% roughage with minerals added to one lot, and found that lambs fed the commercial pellet made good gains, but the gains required more feed than the other pellets.

A third series of trials reported on by Colorado State University researchers compared the results gained with feeding dehydrated alfalfa pellets and suncured alfalfa pellets to lambs. Trace mineral salt was available to all the lots.

They concluded from the experiment that lambs can be fattened on either dehydrated or suncured alfalfa but that dehydrated alfalfa pellets gave larger gains and required less feed to produce the gains than the sun-cured alfalfa pellets.

Bob Jacobs

ADVERTISING JOB — Glen Bloom, director of advertising for Kent Feeds, Inc., Muscatine, Iowa, has announced the appointment of Bob Jacobs as manager of advertising services. In his new position, Mr. Jacobs will be responsible for coordinating the activities of the display, photography and printing departments. For the past four years he has served as general manager of Kent elevators. He has attended Muscatine Junior College and Iowa State College.

SEED PLANT BUILT

LA CROSSE, WASH.—The Haskins Construction Co., Spokane, has been awarded a seed plant building contract by the LaCrosse Grain Growers, Inc. Grading and filling work in preparation for pouring concrete has been completed. Cost of the new plant will be $100,000. The new seed facility will be housed in a 220x60 ft. steel building, rising in the center to a height of 55 ft. Modern cleaning and treating equipment will be installed.

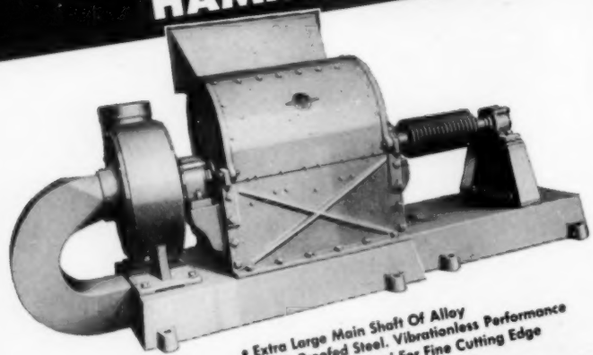
Machines for Modern Milling...

FORSTER WEIGH BUGGY

FOR ACCURATE MIXING
Use the Forster Weigh Buggy to improve mixing accuracy . . . to save labor . . . to save time . . . for weighing, hauling, and dumping. Features accurate beam scale and sliding panel in bottom for dumping. Write for complete details, today.

18 cu. ft. $295
25 cu. ft. $375

FORSTER HAMMER MILL



• Heavy Construction
• Cast Iron Base
• Cast Steel Fan
• Made in Five Sizes

• Extra Large Main Shaft Of Alloy
• Shock-Proofed Steel. Vibrationless Performance
• Hammers Carburized For Fine Cutting Edge and Long Life

Want quality? dependability? low maintenance? Specify a Forster Mill for your needs. Here's the mill that's proved itself in thousands of installations.

MAIL COUPON OR WRITE for more details TODAY!

FORSTER MANUFACTURING CO., ADA, OKLAHOMA
Gentlemen: Please send complete details on the following:
☐ Weigh Buggy ☐ Hammer Mill
Name.....
Company Name.....
Address.....
City.....State.....

FORSTER MANUFACTURING COMPANY

BUILT AT ADA, OKLAHOMA TEL. FEderal 2-6020 ADA

Fleischmann's F·I·D·Y
IRRADIATED DRY YEAST
RICH IN VITAMIN D FOR FOUR FOOTED ANIMALS

RILEY

BROKERS—
COMPLETE LINE OF FEED INGREDIENTS
839 BOARD OF TRADE KANSAS CITY 6, MO. BALTIMORE 1-2060

there's money in the LIPAMONE finish!

LIPAMONE OPENS UP NEW MARKET FOR ALERT FEED MEN

Build feed sales with the only in-the-feed poultry hormonizer.

"In-the-feed" LIPAMONE now replaces the needle, the pellet, the paste, and the "gun" crew.

Today poultrymen seek their favorite formulas with LIPAMONE added, for better bloom, excellent weights, uniform quality finish.

LIPAMONE is the estrogenic hormone, dienestrol diacetate, in a carrier of corn distillers' dried grains. It is easily added to any feed formula. Proportions clearly listed on the label. LIPAMONE goes right along with whatever additives you may now be using.

SOLD in 1-lb. cans and 50-lb. drums to the Formula Feed Manufacturers.

Finish in the money

LIPONETTE "the 24-carat bird"

LIPAMONE

"It's in-the-feed"

Phone, wire, or write for further information.

Agricultural Division
WHITE LABORATORIES, INC.
Kenilworth, N. J.

FREE-Professional Inspection by Grain Sanitation Specialist

Now you can get professional help and guidance in freeing your premises of costly insect damage without spending a penny! Here is the fool-proof, 4-step way to positive protection for grain, profits . . .

1. Inspection. The professional Douglas Sanitation Specialist will sample your grain. Every factor is checked . . . moisture content, temperature, test weight, insect population and odors. Your entire facility is checked from roof to sub-basement to surrounding trackage.

2. Detection. The Douglas Sanitation Specialist knows just what to look for, where to search . . . always mindful that different conditions call for different corrective measures.

3. Evaluation and Report. When your Douglas Grain Sanitation Specialist is satisfied that every point has been covered he will give to you a report of his findings.

4. Correction. At this point, the professional Sanitation Specialist can tell you what corrective or preventive steps should be taken. He will be able to recommend exactly the right Douglas product to keep your profit picture rosy.

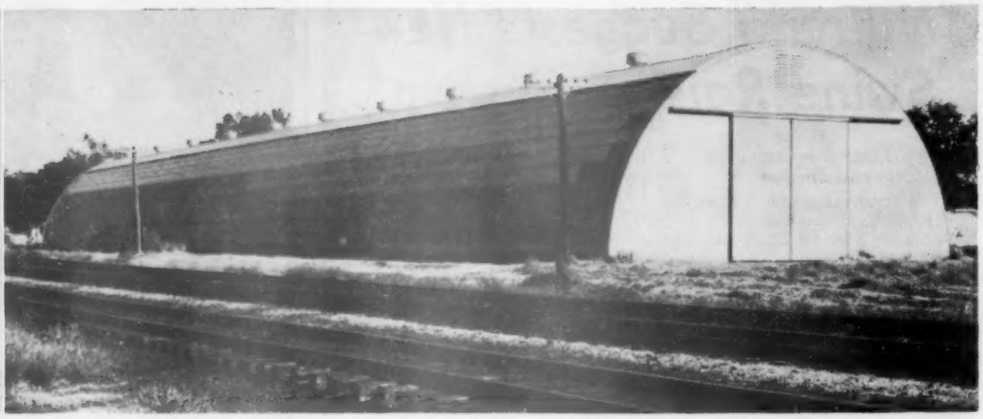
Douglas

"Guardian of America's Grain"

Free Bonus Offer...

Send for your Douglas 1958-59 Grainman's Insect Calendar with full color illustrations and information about insects that can and do attack your grains. Now you can identify them quickly . . . know what to do to eliminate them.

Just check "Calendar" on the handy coupon.



Tetrakoted Corn Two Years Ago ...Still No Bugs!

Otto Genschorck, Manager of the Farmers Co-operative Grain Association in Waterville, Kansas, knows that TETRAKOTE is the key to Douglas' Grain Sanitation System. Here is what he says . . .

"We have a 105,000 bu. capacity quonset. In 1956 we put 59,000 bu. of yellow corn in it. We used TETRAKOTE to treat the corn as it was put into the quonset. That was 2 years ago. There are no bugs in the grain as of this date.

We put in a partition and 1½ years ago we filled the rest of the building with 44,000 bu. of wheat. This was also treated with TETRAKOTE. There is still no sign of bugs. After a time we sprayed the whole top with Douglas' SPECIAL MILL SPRAY.

We highly recommend TETRAKOTE and feel that all grain which is to be stored should be treated with it." Douglas files are bulging with letters that echo Mr. Genschorck's praise.

CONTROL Every Possible Insect Problem Can Be Licked With Douglas Products . . .

TETRAKOTE, the modern liquid grain protectant . . . guards against insect infestation up to one year or longer.

TETRAFUME, more than an all-insect fumigant . . . helps cool, helps control moisture, helps remove musty and ground odors as well.

TETRAKIL, America's top weevil killer especially for fumigation of farm and flat storage.

TOPKOTE "77", 2-way protection for grain surface . . . fumigates top; leaves insect-killing residue.

SPECIAL MILL SPRAY, surface and space spray for positive long-lasting protection against insect invasion.

FARM BIN SPRAY, perfect for pre-filling clean up. Residual spray rids empty bins of hidden insect population . . . also use on outside of bins.

Costs You Nothing; Douglas Foots The Bill

Get your Professional Grain Inspection FREE! Mail this coupon Today . . .

DOUGLAS CHEMICAL COMPANY, Dept. F-5
620 East 16th Avenue, North Kansas City, Missouri

☐ I want professional assistance with grain sanitation. Without obligating me, have your Specialist contact me.

☐ I would like to have the inspection made within 30 days _____ 60 days _____ (check one)

I am storing _____ bu. of _____ (kind of grain)

☐ Please Send Copy of 1958-59 Grainman's Insect Calendar

COMPANY NAME _____

ADDRESS _____

CITY _____ STATE _____

TITLE _____ SIGNED _____

'Pigloo' Program

Nutrena Suggests New Swine Raising System

By JAMES E. SHARON
Feedstuffs Staff

A different approach to modern hog production methods has been initiated by Nutrena Mills, Inc., feed subsidiary of Cargill, Incorporated, Minneapolis.

Nutrena officials describe it as "a deceptively simple system of raising hogs," which lifts key principles of production out of the multitude of hit-or-miss practices now being used, and draws them together into a rigidly efficient program.

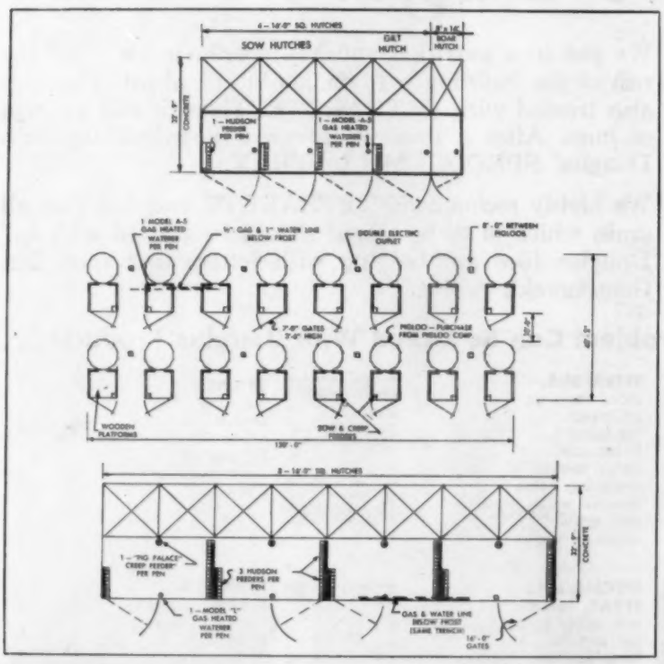
Called the "Pigloo" system, it is based on what Nutrena calls "recently-developed techniques of antibody protection, animal isolation, natural birth and physical protection of the young pigs." It involves principles of breeding, farrowing, feeding, housing, management and marketing of hogs on a year-around program that sees hogs marketed every 56 days.

The system is said to be equally suited to any part of the country, although it is being introduced in the central and southeastern hog-growing states. Nutrena adds that it is offering the plan devoid of any contracts—no strings attached. It says the setup deliberately runs counter to two major aspects of present-day hog production—the central farrowing house and integration in the swine industry.

Unlike the presently-popular large-scale production methods, the system is built around a number of specially-designed, prefabricated individual birth units, called Pigloos. The program is set up for private ownership of low-cost housing and equipment, and management by farmers.

"We believe," says James C. North, Nutrena president, "the Pigloo system is the best answer for those who want to avoid contract hog production. We believe a healthy pork industry can be built with each segment—breeder, grower, feed manufacturer and packer—remaining independent. With this system, hog raisers can become large-scale producers with a reasonable investment and can remain private businessmen.

ALL-WEATHER BIRTH UNIT—View here is of a Pigloo with top removed to show working details. Sow conforms to shape of house and pigs have easy access from protected inner-circle. Drafts are diverted from door on right by corrugated side of inner-circle. Heat from sow and heat lamp have been totally adequate for pigs despite winter temperatures of -25 degrees. Light bulb is used in summer to draw pigs to center of unit. Baffle boards on each side keep pigs inside first few days, until they're sturdy enough to get outside for their own creep feed and water.



COMPLETE 900-PIG SYSTEM—Here are the three elements of Nutrena's basic Pigloo system; the sow and boar hutches at top of plan, double row of individual Pigloos for farrowing in center, and the growing and finishing hutches at bottom of plan. Scheduled breeding, which makes efficient use of sow's natural breeding cycle to produce 6.25 farrowings for the herd yearly instead of usual two, is basis for plan. Automatic waterers are heated by either gas or electricity.

"Application of the system will result in volume production of hogs at low cost and top efficiency. Its economic advantages, both to the farmer and the ultimate consumer, are so great as to promise a complete revamping of present pork production methods.

Against Contracts

"We found," said the Nutrena president, "that the great majority of our customers wanted no part of contract growing. They said they preferred to remain independent. Because the Pigloo system answers the major needs of the industry without depriving producers of their independence, we believe that it will create the healthy climate needed for growth—their growth and ours."

THE PLAN: Basically, the Pigloo system is a 900-pig-yearly production unit. It includes 16 individual Pigloos, or farrowing houses, four separate hutches on concrete for sows not actually farrowing, four hutches for growing and fattening young pigs on concrete after weaning, a single hutch for boars, and a schedule and description of techniques for breeding, handling and feeding to provide highest efficiency in the overall operation. The system uses a herd of 60 sows divided into three breeding groups, some replacement gilts, and three breeding boars. The complete system was developed by Nutrena's Clarence Whitworth and James S. Collins, Minnesota animal breeder and consultant to the firm.

Both the pre-fabricated, patented Pigloos and designs for on-farm construction of auxiliary hutches are offered exclusively by Nutrena. Blueprints for the complete layout are available through Nutrena dealers at $1 a set. A complete 900-pig-a-year plant, including watering and feeding equipment in each pen, costs about $11,000, as compared with $30,000 to $40,000 for many plants of comparable size and which incorporate a central farrowing house and "controlled environment," officials said.

Nutrena dealers also will provide the farmer with technical information on the conduct of the system and will offer their "balanced weight-cycle" program of feeding for growing desirable meat-type hogs. The company will also assist in selecting breeding stock, at the grower's request.

Nutrena has also expressed a willingness to assist growers in finding a market for their hogs—to the extent of helping the producer get to-

to balance protein for

DU PONT

for full information, write
E. I. du Pont de Nemours & Co. (Inc.)
Grasselli Chemicals Department, Animal Industry & Nutrition Section, Wilmington, Delaware

Atlanta 8, Ga.,
739 W. Peachtree St.

Cleveland 14, Ohio,
1321 Nat'l City Bank Bldg.

gether with a packer and working out his own deal.

As of mid-April, when the company culminated a series of combined dealer-farmer meetings with an Iowa farm demonstration for representatives of the national farm and business press, several hundred orders for from 1 to 32 Pigloos reportedly had been shipped. The Pigloo Corp., a Guttenberg, Iowa, firm, manufactures them. The individual units sell at about $150, plus shipping charges.

Materials for the individual pen, located in front of each Pigloo, as well as for the sow and feeding hutches, are obtained by farmers themselves through local lumber dealers. Water and either gas or electric lines are likewise arranged for locally.

Nutrena makes particular point of the fact that a farmer can take all of this plan, or merely parts of it, as he sees fit. He is not required to start out with a full-scale program, but can grow into it. In this way, they explain, he can often secure more conservative local financing more easily.

PLAN DEMONSTRATED: This approach was especially well-illustrated on the commercial hog farm of Harold Deters near Waukon, Iowa, where the farm demonstration was held. Mr. Deters has been testing the Pigloos for Nutrena throughout the three years of experimentation that have gone into developing the system.

He started out with five Pigloos, but now has grown to 16, financing the expansion from profits achieved along the way. He now plans to add 16 more of the individual farrowing units, which will give him a yearly output of 1,800 market hogs.

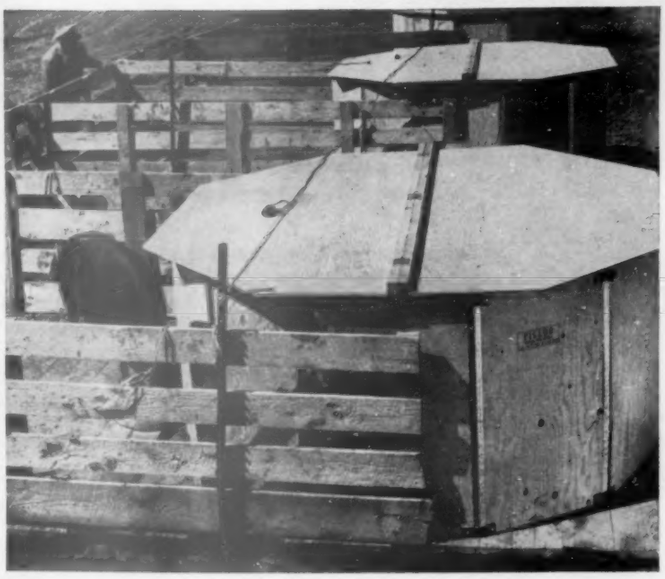
Currently, he is using several hutches for the sows due to farrow shortly, but is still using a concrete feeding floor and conventional housing which were already on the farm, for finishing operations. He will add the necessary hutches for sows and hogs being fed, at a later date. He is in the process also of putting in water lines to more of the Pigloos. He likewise doesn't have all the recommended feeders and automatic waterers installed as yet.

On the marketing end, Mr. Deters said that while most of his pigs have been fed out, he is considering selling part of his next group of pigs as feeders. The northeastern Iowa farmer is watching the strong feeder pig market closely.

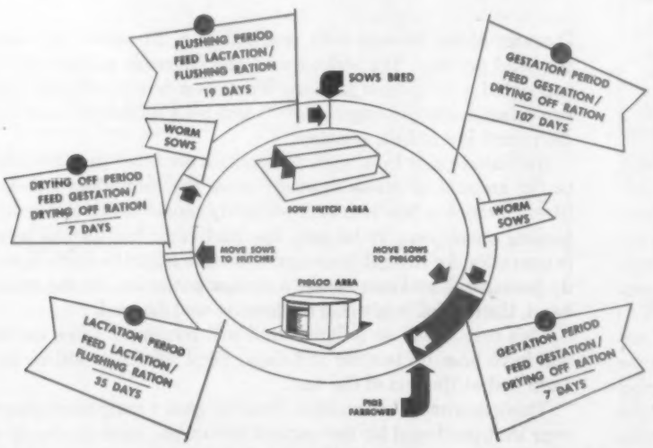
Test Results

Preliminary tests of the new system have been conducted during the past three years at 10 on-farm locations in Iowa, Minnesota, California and Wisconsin. Those tests produced 5,000 animals, with these results reported by Nutrena:

1. Mortality rate due to crushing of infant pigs by adult animals, which runs to 14% on the national average, was less than 2%;
2. Disease loss—which can range from 10% to entire litters—was practically zero;
3. Initial construction cost of housing—for breeding, farrowing and growing—was less than 50% that of currently popular large-scale, controlled-environment housing;
4. Labor required to produce 900 pigs annually was cut from an estimated one man to one half man;
5. Pig weights at the standard 56-day weighing time were 6 to 10 lb. greater than animals raised in other recommended housing;
6. Year-round marketing was achieved by scheduled breedings of portions of the sow herd to result in seven farrowings each year rather than the conventional two.



BATTERY OF ISOLATION UNITS—Sixteen of these Nutrena Pigloos are lined up on Harold Deters' Iowa farm, geared to produce 900 pigs a year. The single-litter units are placed 8 ft. apart, providing isolation which takes advantage of sow's natural nesting instinct and ability to develop antibodies against disease. Antibodies, passed in milk to the pigs during first five weeks of life, successfully protect them when they are in isolation, according to Nutrena. Flat roof is fitted snugly on top in winter, can be raised slightly in summer to speed up air movement. Pigs were farrowed comfortably in Iowa last summer during 95-degree weather. No other special insulation or ventilation equipment is needed—a big saving.



BUSY PRODUCTION TIMETABLE—Nutrena's "Natural Cycle" housing, breeding and feeding timetable of the Pigloo system makes a sow's 175-day pattern of living look like this: She moves into hutch after weaning, for (see 1) a seven-day drying-off period, (2) worming and a 19-day flushing period, then is bred. Gestation (3) takes 107-114 days. Wormed again, she moves into individual Pigloo (4) about seven days before farrowing. Thirty-five days later, her litter is weaned (5), and she moves back to her hutch. The litter moves to growing and finishing hutches where they stay until marketed.

Use of the scientifically developed and patented single-litter Pigloo instead of the popular multi-animal farrowing house is the key to the new system, says Nutrena. Because this enables the farmer to apply an isolation technique similar to that in advanced human maternity hospitals, death from disease is practically eliminated. And by preventing the sow from lying on and crushing the young pigs, the Pigloo's design cuts another high-mortality problem to near zero, according to Nutrena spokesmen.

The Pigloo itself is a 12-sided marine plywood structure, 3½ ft. high inside, 8 ft. in diameter, with one side open from floor to ceiling to create a doorway leading to the individual outside pen. Located in the approximate center of the house is a 3-foot metal circle. It is slightly off-center toward the door in order to force the sow to lie down only on the side opposite the door.

Half the circle is a bar 6 in. above the floor, and another one about 1 ft. above it. Completing the circle, on the side toward the door, is a metal shield extending 2 ft. up from the floor. This serves as a baffle against drafts of outside air. The door is left open year-around. An electric heat lamp is suspended within the shielded area, to draw pigs away from the sow as soon as they're born, and to provide them with some heat in chilly weather.

The Pigloo door opening faces a fenced-in wood or concrete-floored area 8 ft. square, for private exercise and feeding of the sow.

No Confinement

This system actually gets away from the confinement aspect of farrowing stalls commonly used today. In the Pigloo, the sow is free to come and go at any time, and regularly goes outside for feed, water and to leave her manure.

Individual Pigloos are spaced 8 ft. apart in rows to prevent transmittal of disease germs from one unit to the next.

PIGLOO PRINCIPLE: The sow is a nesting animal that seeks darkness and closer quarters at farrowing, Nutrena researchers point out, so there is no danger of the Pigloo being ignored in favor of the exercise area at birth time.

The sow is first introduced to the Pigloo seven to 14 days before farrowing. During the waiting period she becomes adjusted to her surroundings, fashions her nest of wood shavings inside the structure and develops, within her body, antibodies needed to withstand disease microorganisms present in the immediate area. The Pigloo sow, having developed her own protection, passes

(Continued on page 44)

faster poult gains on less feed, use
METHIONINE
DU PONT MANUFACTURES METHIONINE FEED GRADE AND METHIONINE HYDROXY ANALOGUE CALCIUM
Houston 25, Texas, 1100 E. Holcombe Blvd.
Minneapolis 2, Minn., 1207 Foshay Tower
Palo Alto, California, 701 Welch Road
Wynnewood (Phila.), Pa., 308 E. Lancaster Avenue
In Canada: Du Pont Company of Canada (1956) Limited, 85 Eglinton Avenue East, Toronto 12, Ontario
DUPONT
REG U.S. PAT OFF.
Better Things for Better Living . . . through Chemistry

STATE COLLEGE OF WASHINGTON

Some effects of Dynafac (Tetra Alkylammonium Stearate) and Stilbestrol on performance of fattening steers

(Department of Animal Science Stockman's Handbook, 1957)

An experiment consisting of six groups of 20 steers each was initiated to determine the effect of Dynafac when used with and without stilbestrol implants for fattening steers. The control ration for this test consisted of approximately 45% barley, 17% cull peas, 7.5% beet pulp, 5% cane molasses, .5% salt, and 25% alfalfa hay. Rations 4, 5, and 6 were the same except that Dynafac was mixed into the feed so that each steer received 2 g. per head daily. The 20 steers in each of groups 2, 3, 5, and 6 were implanted with 36 mg. of stilbestrol each at the beginning of the test. The performance of the 120 head of steers through 101 days is encouraging.

	No Dynafac			Dynafac (2g. per head/day)		
	Group 1 Control	Group 2 1 + Stilbestrol	Group 3 1 + Stilbestrol	Group 4 Control	Group 5 4 + Stilbestrol	Group 6 4 + Stilbestrol
No. steers	20	20	20	20	20	20
Avg. initial wt.	619	615	617	606	611	609
Avg. final wt.	918	961	985	958	974	979
Days on test	101	101	101	101	101	101
Avg. daily gain	2.97	3.43	3.65	3.48	3.59	3.66

Dynafac alone (Group 4-1) resulted in a .51-pound increase per head per day. The stilbestrol alone (average of 2 and 3-1) supported a .57-pound increase whereas a combination of the two compounds (average of lots 5 and 6-1) increased gains by .66 pound per animal per day.

Increased gains from such compounds are often proportional to the amount of stress imposed upon the individual animal. Stress factors in this test were probably representative of many feeding operations. To be sure, the McGregor feedlot has been in operation for several years and therefore might be quite heavily parasitized and carry quite a disease potential. On the other hand, the rainfall is low and the lots are well drained.

This test is still in progress and will terminate when cattle will have been on test for 126 days. Feed efficiency will be determined at the end of the test.

This experiment shows that Dynafac gave a marked response over that produced by the control ration and even produced a small response over performance of steers that were implanted with stilbestrol. It is probable that Dynafac will be used quite widely since it is effective in increasing gains without producing undesirable side effects.

COLLEGE RESEARCH SHOWS NEW CHEMOBIOTIC, LOWERS COST

NORTH FLORIDA Agricultural Experiment Station

(North Florida Experiment Station, report 58-2, Dec. 13, 1957)

TABLE 580. Dynafac in Fattening Ration

	Lot 13 1.5 grams Dynafac per head daily	Lot 14 2.0 grams Dynafac per head daily	Lot 15 CONTROL
Number head	8	8	8
Number days	111	111	101
Average initial weight	779	779	779
Average final weight	986	1009	993
Average gain	206	230	214
Average daily gain	1.86	2.07	2.12
Average daily rations:			
Ground snapped corn	16.21	15.06	16.80
Citrus molasses	3.97	3.97	3.97
41% cottonseed meal	2.50	2.50	2.50
Coastal Bermuda hay	4.15	3.92	3.05
Feed per 100 pounds gain:			
Concentrates	1220	1039	1097
Hay	223	189	144
Minerals (salt, bonemeal)	1.8	2.6	2.4
Cost	$25.94	$22.28	$22.51
Carcass weights and grades:			
Average sale weight	986	1009	993
Average carcass weight	609	605	592
Carcass yield (per cent)	61.82	59.98	59.60
Carcass grades	—	—	—
	1 low choice	—	—
	1 high good	3 high good	—
	1 avg. good	2 avg. good	2 avg. good
	4 low good	2 low good	3 low good
	1 high std.	1 high std.	3 high std.
Market value per cwt. carcasses	$36.61	$36.44	$35.26
Market value per cwt. on feet	22.63	21.86	21.02
Average cost feeder steer	148.01	148.01	148.01
Average cost feed	53.44	51.24	48.17
Average cost cattle and feed	201.45	199.25	196.18
Gross return per steer	223.13	220.57	208.73
Average net return above cattle and feed	21.68	21.32	12.55

(1st test) Further tests now in progress.

Armour comment: Please note in the Florida Experiment that cattle in Dynafac Lots 13 and 14 brought extra profits of $9.13 and $8.77 respectively. The total cost of Dynafac per steer was $.55 in Lot 13—and $.74 in Lot 14.

MONTANA STATE COLLEGE Agricultural Experiment Station

The Effect of Adding Dynafac to Rations for Yearling Cattle fed Stilbestrol or Implanted with Stilbestrol or Synovex

(Animal Industry Leaflet No. 7, Sept., 1957)

One hundred steers and one hundred heifers were individually weighed, eartagged for identification and placed on feed May 3, 1957. All cattle were hand-fed a basal ration of two-thirds rolled barley and one-third dried molasses beet pulp. Grass hay was used as the roughage. In addition, each animal was fed one pound per day of a supplemental pellet containing 32% protein with or without Dynafac or stilbestrol added.

TABLE 2. Weight Gains of Steers (May 3 to August 23, 1957—112 Days)

Lot	1	2	3	4	5	6	7	8
Treatment	Control	DES 36 mg. Implant	DES 10 mg. Daily	Synovex Implant	Dynafac Control	Dynafac DES 36 mg. Implant	Dynafac DES 10 mg. Daily	Dynafac Synovex Implant
Number of Steers	13	13	13	13	13	12	12	12
Average Weights (lbs.)								
Initial	593	599	595	623	606	605	575	611
Final	855	889	889	909	880	925	866	910
Gain	262	290	294	286	274	320	291	299
Daily Gain	2.33	2.59	2.63	2.55	2.45	2.86	2.60	2.67

TABLE 3. Weight Gains of Heifers (May 3 to July 26, 1957—84 Days)

Lot	9	10	11	12	13	14	15	16
Treatment	Control	DES 18 mg. Implant	DES 24 mg. Implant	DES 10 mg. Daily	Dynafac Control	Dynafac DES 18 mg. Implant	Dynafac DES 24 mg. Implant	Dynafac DES 10 mg. Daily
Number of Heifers	13	13	13	12	12	12	12	12
Average Weights (lbs.)								
Initial	594	595	587	557	581	572	587	559
Final	740	754	763	740	746	773	782	745
Gain	146	159	176	183	165	201	195	186
Daily Gain	1.74	1.89	2.10	2.18	1.96	2.40	2.33	2.22

A summary of the weight gains made by the steers is shown in Table 2. The steers averaged approximately 600 pounds at the start of the trial, and average weights at the end of the trial ranged from 855 to 925 pounds. The control steers gained 262 pounds and averaged 2.33 pounds per day. Steers on other treatments gained from 5 to 22% more than the controls.

The greatest gains were made by steers in Lot 6 fed Dynafac and implanted with 36 mg. of stilbestrol. These steers gained an average of 320 pounds during the trial with an average daily gain of 2.85 pounds. These steers gained 22% more than the controls and 10% more than those implanted with 36 mg. of stilbestrol. Steers implanted with Synovex gained slightly less than those given stilbestrol.

The heifers averaged about 585 pounds at the beginning of the feeding trial. Weight gains made by heifers ranged from 146 pounds for the controls, to 201 pounds for Lot 14 heifers fed Dynafac and implanted with 18 mg. of stilbestrol. Heifers fed Dynafac or stilbestrol gained from 8 to 37% more than the controls.

Steers or heifers fed stilbestrol orally gained slightly more than those implanted with stilbestrol; however, steers or heifers fed Dynafac and implanted with stilbestrol gained more than those fed Dynafac and stilbestrol in combination. Steers fed Dynafac alone gained 5% more than controls, whereas heifers fed Dynafac alone gained 12% more than the controls.

ARMOUR DYNAFAC,

OF PRODUCING BEEF

NINE POUNDS AT ONE WEEK—Iowa farmer, Harold Deters, holds up a week-old pig farrowed in Nutrena Pigloo on his farm. The pig weighed in at nearly 9 lb. at a week of age, compared to an average of 5 or 6 lb. usually achieved under more conventional housing systems. With Mr. Deters are James Collins, left, Nutrena animal breeding consultant, and his brother, Robert, of the Pigloo Corp., which builds the Pigloos. Robert designed the unit and developed it with assistance from James. Mr. Deters reported about 75% of his hogs marketed out of the Pigloo system have graded No. 1 for meat type quality.

antibodies in her milk to the newly farrowed young.

Isolation of the Pigloo is maintained in different ways. The units are separated so germs are killed by fresh air in passage from one to another; another hospital idea is that of using the interior warmth of the Pigloo to create a constant outdraft of moist air, providing a barrier to approaching germs. Self feeders in the exercise enclosure are filled by a bulk feed truck with no human contact with the animals. The farmer, who disinfects his boots and equipment before entering the enclosure, is required to approach the sow and pigs only three times during their five-week stay in the Pigloo.

ACTUAL OPERATION: In operation the Pigloo system comprises a herd of 60 breeding sows divided into three groups of 20 each, roughly another 20 replacement females and three breeding boars. A schedule of seven farrowings yearly is established initially by selecting the groups of sows according to their reproductive cycle and breeding all members of each group at the same time. A sow's gestation period is 110-116 days, enabling each group to farrow two and one-third times a year. After the first "scheduling" the cycle will continue indefinitely.

A group of 20 sows is served by three boars at one time on a multiple-sire basis, to get better conception. Gilts not settling the first time are sold, usually leaving about 16. Each group of 16 has a hutch 16 by 16 ft., with a paved area in front the same size. Woven wire sides, center partition and back of hutches allow free air movement in warm weather. Wood panels are bolted on sides, center partition and back for warmth and proper ventilation in cold weather.

At 107 days after the first gilt in the group of 16 was bred, all 16 are moved into the Pigloo units. Thirty-five days after the first sow in the group farrows, all pigs are weaned and the sows moved back into the sow hutches the same day. This normally brings the breeding cycle back on a regular schedule for all sows in that group. The sows are usually bred back in about 26 days after the pigs are weaned. The same system is used with the other two groups of gilts, except that the second group is bred the first time 56 days later than the first, and the third 56 days after the second. Each sow is kept through five litters if she performs satisfactorily.

Low Roofs

As with the breeding hutches, the growing and finishing hutches are only 4 ft. high. Four equal-size pens that will hold 70 hogs each from weaning to market are needed to maintain the 900-a-year volume. Pigs are held in the Pigloos four days after weaning, even though the sows are already gone. This is done to avoid the stress of weaning and moving at the same time.

At about 39 days of age, then, the pigs are moved into the growing and finishing hutches. There are two hutches for each pen, and each hutch is divided into two compartments. Nutrena explains that two compartments are closed off when pigs are put in the hutches. These are opened as the pigs grow, to keep each compartment full of hogs for winter warmth and to help keep the hutches clean inside.

As long as the hutches are kept full of hogs, the company has found, the hogs will seldom dung inside. Removable wood panels go over the wire sides, back and partitions in winter, just as with the breeding hutches. All wood is treated for long life.

Economy Features

Hutches themselves form the back fence for the pens, as well as providing 16 ft. of side fencing. Two self-feeders, 8 ft. long, on one side of pen and one self-feeder, 8 ft. long, on the other side form partitions between pens as a further economy feature. Heated automatic waterers are at front of each pen. Wood shavings, ground corn cobs or straw are placed in the hutches for bedding.

The entire growing and finishing section of hutches is pulled up on a concrete feeding and exercise slab measuring 32 by 128 ft. The hutches occupy half the slab, as is the case with the breeding section. The slabs are sloped downward from the center to the outside edges, for drainage.

Ease of manure removal is a major feature of the entire system. All hutches, which are on skids, can be towed off their slabs between groups of pigs or sows and the slab easily bladed off with a tractor. Pigloos are easily cleaned and disinfected between litters. Manure is outside in the individual pen, which has a swinging gate on the front.

Nutrena recommends its "weight-cycle" feeding program to meet the special needs of hogs at each weight stage. It offers complete rations or concentrates. The company urges bulk feeding of pelleted feeds where possible. Mr. Whitworth emphasizes the value of bulk handling by pointing out that about 600,000 lb. of feed are used in all forms to market the crop of 900 hogs.

Feed Program

Feed changes are coordinated with housing changes and available feeding equipment in an effort to save labor. One type of ration is fed from the time pigs enter the growing and fattening hutches, until they weigh about 60 lb.; then Nutrena recommends they be put on a complete, pelleted ration up to 135 lb. At that weight they switch to a finishing feed, also in bulk, pelleted form.

The company recognizes that feed consumption will vary with age, size, weather, management and many other factors. However, with good management and good animals, they figure the following approximate feed requirements:

For the 175-day cycle with sows, each sow will eat about 1,575 lb. of feed if self-fed, or 1,457 if hand-fed. A holding ration for each gilt or boar five to seven and one half months of age will total about 562 lb. if self-fed or 487 hand-fed.

The birth-to-market feeding program for the pigs calls for five different kinds of feed in sequence. The first one is a creep ration fed until a pig weighs about 10 lb., and is calculated to produce 1 lb. of gain on 1 lb. of feed, for a total requirement of 5 lb. feed. The second ration takes a pig from 10 to 30 lb. body weight, using a total of 30 lb. feed at 1.2 lb. feed per pound of gain.

The next ration takes the pig from 35 to 60 lb., using 50 lb. feed on 2 lb. feed per pound of gain; the fourth is fed from 60 to 135 lb., using 187 lb. on a conversion rate of 2.5 lb. feed per pound of gain.

Figure Efficient Gains

The fifth ration is figured to finish the job from 135 to 200 lb. market weight, requiring only 195 lb. feed, for a conversion of 3 lb. feed per pound of gain. The total feed efficiency rate, from birth to market, figures at 2.33 lb. feed per pound of gain, according to Nutrena. It is the basis of their urging farmers to feed complete, pelleted rations from birth to market.

Estimated annual feed cost per hog marketed under the Pigloo system, including feed for all breeding stock, is $20.01 or 10¢ lb. of hog marketed, according to Nutrena. Based on 144 pigs from the 16 sows in each group, and an average of 6.24 farrowings a year from all three groups, the total annual feed cost is $18,009. It was pointed out that the peak feed investment a farmer would have at any one time of year, would be approximately $5,800.

Projecting profit and loss figures on the whole operation, Nutrena estimates an annual labor income of $4,131 on 432 market hogs weighing 200 lb., on an $18 market the first year. This would climb to $11,614 on 900 head on the same market after the first year. Estimated annual income per pig would be $9.56 on 432 the first year and $12.91 in following years, on 900 head. These figures pull together all expenses in any way connected to the operation.

Industry Effect?

What effect will this 900-hog plan have on the swine industry? As President North emphasized earlier, farmers can grow into the system a little at a time. The company further indicated it felt the trend already is toward larger producers, and farmers are demanding better ways of producing hogs in volume, efficiently.

According to Mr. North: "Our production specialists and field representatives will not only explain the system to individual farmers, but will also present it in full to local bankers and other financial agencies. We are convinced that the comparatively small investment involved, plus the markedly higher production indicated will convince both that hog raising can be more profitable under this system than under any other now in use."

TABLE 1. Schedule for handling three groups of sows on Nutrena Natural-Cycle breeding program. Note that first hogs go to market 265 days after program is started.

Sow group	Farrowing number	Date sows bred	Sows to pigloos (+ 107 days)	Sows to hutches, pigs stay in pigloo (+ 42 days)	Pigs to hutches (+ 4 days)	Pigs to market (+ 112 days)
			Accumulated days from start			
1	1	start here	107	149	153	265
2	2	56	163	205	209	321
3	3	112	219	261	265	377
1	4	175	282	324	328	440
2	5	231	338	380	384	496
3	6	287	394	436	440	552
1	7	350	457	499	503	615

TABLE 2. Economics of Nutrena Pigloo System, Estimated Investment and Annual Use Cost, not including installation costs.

Requirements for marketing 900 hogs per year	Building investment	Equipment investment	Plumbing, electrical, concrete investment	Total investment	Annual use cost* on total investment
Sow and litter section:					
16 Pigloos and pens	$3,360.00	$1,040.00	$ 580.00	$ 4,980.00	$ 643.50
Growing and finishing section:					
8 Hog hutches and pens	1,258.00	1,316.00	1,152.00	3,726.00	518.93
Breeding herd section:					
3 Sow hutches and pens 1 Gilt hutch and pen 1 Boar hutch and pen	736.00	519.00	730.00	1,985.00	263.78
Total	$5,354.00	$2,875.00	$2,462.00	$10,691.00	$1,426.21

*Based on (1) depreciation of equipment in 7½ years, all other items 15 years; (2) 6% interest on average investment; (3) repairs, maintenance, taxes, insurance 3% of average investment.

USDA REPORTS AMOUNTS OF CCC-HELD GRAIN

WASHINGTON—The U.S. Department of Agriculture this week reported that its Commodity Credit Corp. operation as of March 31 owned or controlled more than 900 million bushels of wheat and nearly 1.5 billion bushels of corn. The USDA also said the CCC is holding in inventory stocks approximately 29 million bushels of barley, 43 million cwt. of sorghums and 13 million bushels of oats.

Minnesota Firm Starts Dealers' Feed Forums

SPRINGFIELD, MINN.—The Vigorena division of Springfield Milling Corp. has launched a series of feed forums for Vigorena dealers in Minnesota, Iowa and South Dakota.

Participating in the first forum, which was held in Pipestone, Minn., March 25, were 19 Vigorena dealers from Pipestone and adjacent counties.

The meeting was conducted by Cecil Femling, Vigorena sales manager; Ron Johnson, nutritionist, and Ralph Anderson, district sales representative.

"Farmers today are relying more and more on the feed dealer for expert help in planning a sound livestock nutrition program," Mr. Femling pointed out in explaining the purpose of the forum series. "We have initiated the feed forums to share successful experiences and offer our dealers the latest information on nutrition, sales, credit, advertising and merchandising. The objective is to better equip our dealers to provide the greatest possible personal service to their customers."

FEED STORE OPENS

CHRISTOPHER, ILL.—The Christopher Feed & Produce Store was opened here recently by A. B. Lukehart, Sesser. Mr. Lukehart purchased the fixtures and part of the stock of the former Dees & Snyder business at an auction sale held earlier.

Comparison of Broiler Areas

An accumulation of information comparing major broiler-raising areas from the aspects of production, financing, vertical integration and markets

By Frank D. Hansing
U.S. Department of Agriculture

EDITOR'S NOTE: This article, which compares the major aspects of the broiler business in different broiler-raising areas, is taken from an address by Frank D. Hansing, agricultural economist, farm economics research division, U.S. Department of Agriculture. The talk was given at the recent winter meeting of the Northeast Society of Farm Managers and Rural Appraisers at Dover, Del. Mr. Hansing points out that some of the information included in his talk is based on research findings, some was assembled from magazine articles, some from personal communications with workers in the respective areas and some from published reports on various areas.

In recent years, the broiler industry has become one of the most discussed industries. We hear considerable talk about the low price of broilers, that broilers are being produced entirely by contract and that the industry is rapidly becoming integrated vertically.

Despite this, or perhaps because of it, total production in the U.S. is still increasing and broilers are being produced in many different areas.

In attempting to make some comparisons between these areas I have divided my discussion into four parts: Production, financing, vertical integration and markets.

PRODUCTION: Total U.S. production in 1956 amounted to more than 1.3 billion birds. The 6% increase estimated for 1957 would bring U.S. production to slightly above 1.4 billion birds. Since 1950, production has increased by 126% (table 1).

Production data are assembled by states. Twenty-two states are now classified as broiler-producing. They account for 90% of the broilers produced. The top 10 states account for 70% of the total U.S. production. These states, with their corresponding percentage increases or decreases in production, are shown in table 2.

In the year just ended, Alabama and Mississippi show the largest expansion of broiler production. Except for Maine, the states in the South show more expansion than other states. There are several reasons for this:

1. In the broiler areas, farms are generally small, tillable land is limited and income is low.
2. The farms have lost acreage formerly in other crops, such as cotton in Alabama and Georgia.
3. Soils in the broiler areas are generally low in fertility. Good use can be made of manure and litter.
4. The area has a good climate; nights are cool in mid-summer.
5. As requirements for heat are low, production costs tend to be lower than in other areas. Construction of broiler houses is more economical.
6. Raising broilers provides employment for excess family labor.
7. In some areas, broiler growing fits in well with part-time industrial jobs.
8. The broiler areas are increasing in technology of production.

Broiler production usually centers in one county or a group of counties. Some counties have a large concentration of broiler production. Sussex County, Delaware, is the best example of this. Almost 80 million birds were produced there in 1956. Production in this one county surpassed production in all except five states.

In contrast to the concentration in Delaware, Georgia now classifies 43 counties as commercial broiler counties. The state has more than 11,000 growers compared with 1,000 in Maine (table 3). Maine growers are reported to raise larger flocks than growers in other areas. Delaware growers average about 10,000 birds per flock. Most of the southern states average about 5,000-6,000 birds per flock.

The average size of birds produced varies somewhat between areas. Maine produces the heaviest birds; in

(Continued on page 48)

TABLE 1. Production of Broilers in the U.S.

Year	Millions	Period	Percentage increase
1940.....	142.7		
1945.....	365.6	1940-45	156
1950.....	630.8	1945-50	73
1955.....	1,091.7	1950-55	71
1956.....	1,345.3	1955-56	23
1957.....	*1,426.0	1956-57	6

*Estimated.

TABLE 2. Percentage Increase or Decrease in Broiler Production for Selected States

	1956-57 %	1955-56 %	1950-55 %
Georgia	17	25	182
Arkansas	11	29	56
North Carolina ...	11	58	112
Alabama	24	43	340
Texas	1	26	139
Delaware	7	23	—14
Maryland	8	15	7
Mississippi	23	41	120
Virginia	—2	11	38
Maine	16	30	98
California	—16	8	49

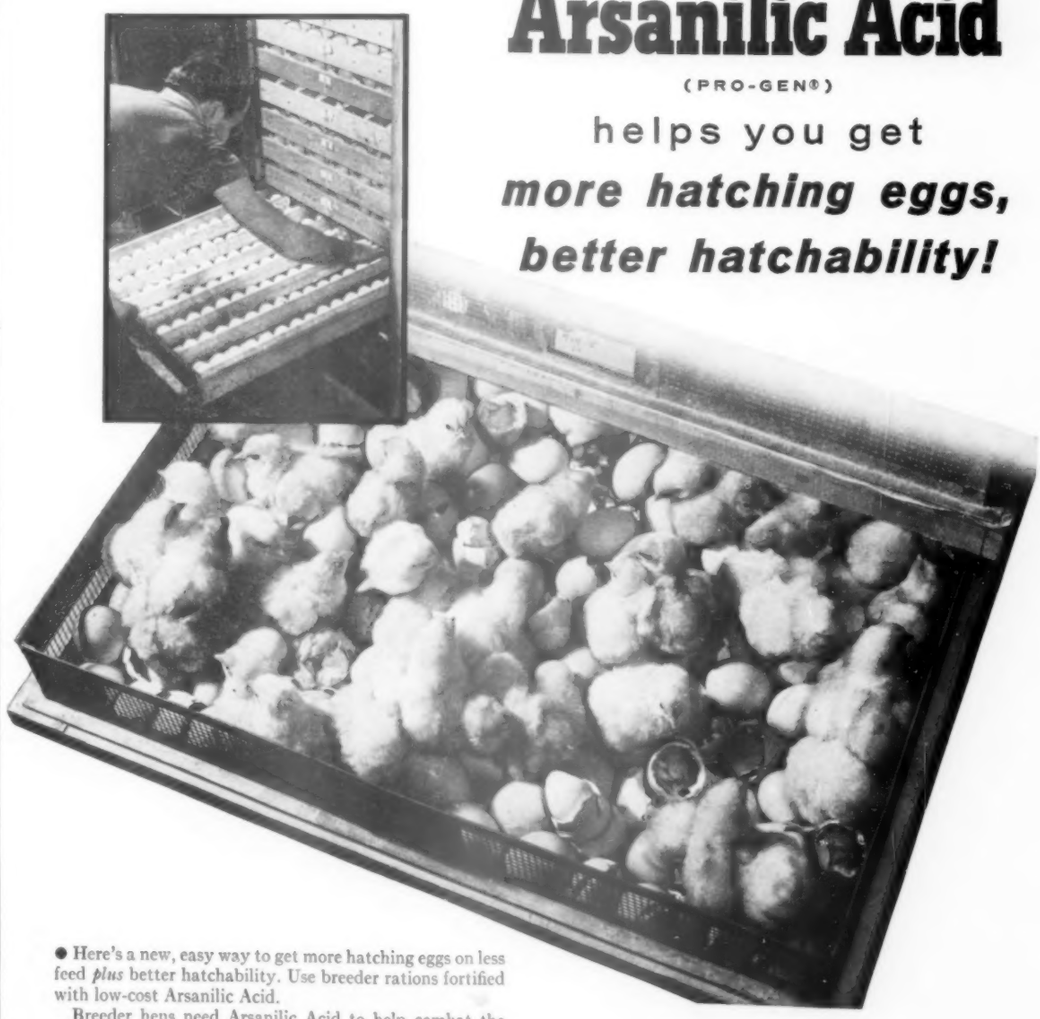
TABLE 3. Average Size of Flock and Number of Growers, Selected States, 1957

	Avg. size of flock No.	Total production Millions	No. of growers No.
Maine	12,000	50.4	1,000
Delaware ...	10,000	91.7	2,250
Texas	8,000	100.8	3,150
Arkansas ...	6,000	110.2	4,500
Alabama ...	6,000	101.9	4,000
Georgia	6,000	261.0	11,000

PRO-GEN
ARSANILIC ACID ADDITIVE
Get it in the Midwest from
Carroll Swanson Sales Co.
620 D. M. Bldg., Des Moines, Ia., Tel. CH. 4-5177

Arbor Acres
Make sure
Your broilers come from
ARBOR ACRES females!

Arsanilic Acid
(PRO-GEN®)
helps you get
more hatching eggs, better hatchability!



● Here's a new, easy way to get more hatching eggs on less feed *plus* better hatchability. Use breeder rations fortified with low-cost Arsanilic Acid.

Breeder hens need Arsanilic Acid to help combat the hidden stresses and sub-clinical diseases that hold down production and hatching percentages.

Arsanilic Acid works in much the same way as antibiotics—but at a cost so low that no poultryman can afford to be without it. For a 1,000 bird flock, an increase of only two eggs a day pays for the cost of the Arsanilic Acid. And, look at the benefits you get . . .

1. More hatching eggs—In tests at the South Dakota Agr. Exp. Station, Arsanilic Acid consistently improved egg production 1.8 to 4.2%. Elsewhere, commercial egg flocks have shown increases of 2 to 15%.

2. Lower feed costs—In breeder rations, Arsanilic Acid gave feed savings of up to ½ lb. per dozen eggs, depending upon the amount of stresses present. In commercial egg flocks, feed savings have ranged from ½ lb. to 1.6 lbs. per dozen eggs.

3. Better Hatchability—Improved hatchability of all eggs set was achieved in South Dakota tests. With the exception of only one test where only a few eggs were set, the improvement in hatchability of all eggs set were from 4 to 5%. (That's 40 to 50 extra chicks per 1,000 eggs!)

All this for only 40¢ per ton of finished feed . . . or about one penny per 50 lb. bag! Get the full story on this safe, low-cost and effective feed additive that pays for itself many times over. Test it in your own feeds under practical *down-to-earth* farm conditions. We'll be glad to supply you trial amounts of Arsanilic Acid at no charge. Write or call . . .

Abbott — ABBOTT LABORATORIES, CHEMICAL SALES DIVISION, NORTH CHICAGO, ILL.

IN CANADA: 1350 COTE DE LIESSE ROAD, MONTREAL 9, QUEBEC 802480

why leading grain men acros

like the *New* model 500RC

Pictured here are only a few of hundreds of grain men who have put the new 500 RC through its paces, and found how easy, conveniently and accurately this improved model makes moisture tests. They have found that buying the best moisture tester is just good business . . . this is the real reason why more Steinlites are used by the grain trade than the combined total of all other makes of testers!

NOW you can test from a larger, more representative 250 gram sample for: Corn, Wheat, Soybeans, Barley, Sorghums, Oats, Rice, Flax, Rye and other grains.
TESTING SPECIFICATIONS: Tests within the moisture range of 4-36%, with an accuracy of .25 of 1%.
NOTE: Tests are equivalent to the basic standards of the U.S.D.A.

250 Gram Sample Makes the Difference

"The big difference we found in the 500 RC was in running several tests on the same sample. We credit the large round cell and the 250 gram sample for giving even distribution and the same reading each time. Our customers can easily check when we test a sample. They feel that they are getting a correct reading."

Edison T. Doupnik
Linn Co-op Exchange Elevator
Linn, Kansas

Tests with State Inspection Office

"I like the model 500 RC Steinlite very much because it tests right with the State Inspection Office.
"If you mix the sample up well, you will get the same moisture test on every sample. The 250 gram sample, I think, is the secret of this new model."

Richard M. Lovingfoss
Sadorus Co-op Elevator Co.
Sadorus, Illinois

No Difference in Tests on Cold or Warm Samples

"We have had our New 500 RC Tester long enough to know what it will do. I like the idea of a 250 gram sample because I think you get a more accurate test. We have found that there is no difference between a cold sample and a warmed up sample. Customers like it because it reads itself. This is our third Steinlite, and we think it is a wonderful machine."

Franklin Petrie
Ackermans Inc.
Popejoy, Iowa

Checks With Shippers' Reports

"Our customers feel the test is more uniform with the large 250 gram sample. Our tests have checked with shippers' reports, thus removing a very important chance of error in buying grain.
"It is just good business to own a new model 500 RC both from a better business and customer relationship standpoint."

Evan Kendall
A.B.C. Grain Corp.
Atlanta, Indiana

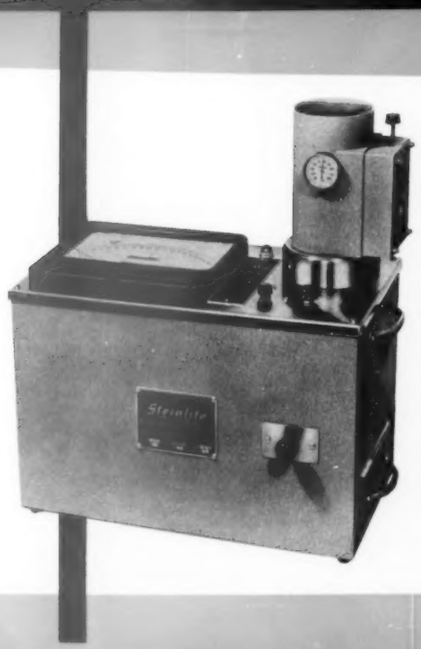
25 Years of Research Have Made Possible These New Features GRAIN MEN LIKE!

- **NEW ROUND FUNNEL**—designed especially for whole grains.
- **LARGE 250 GRAM SAMPLE**—reduces error, maintains accuracy.
- **LARGE 9 INCH METER**—gives instantaneous, automatic reading.

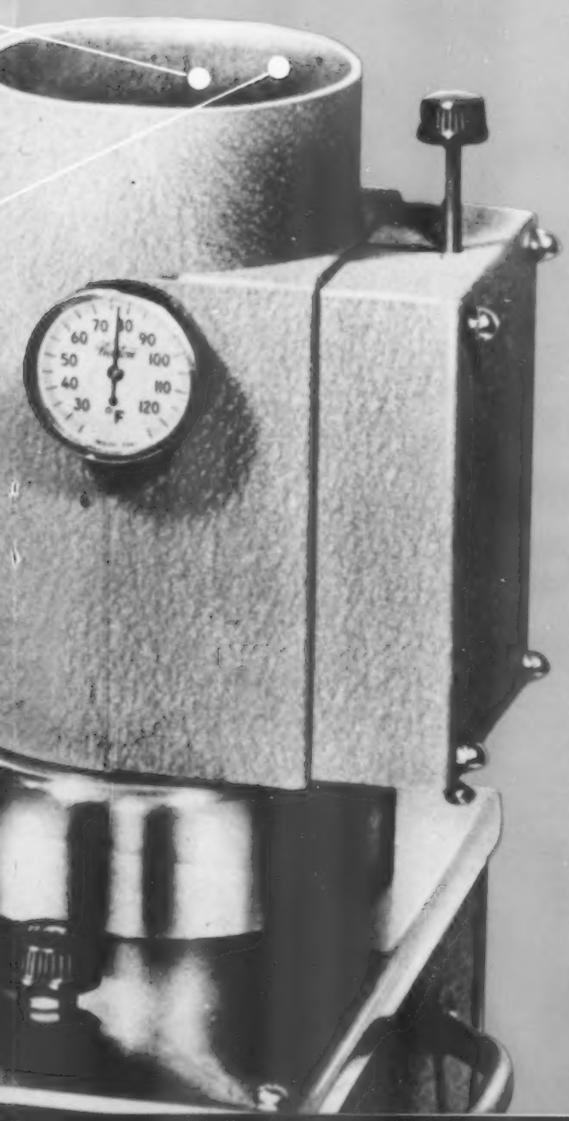
oss the Country

Steinlite

MOISTURE TESTER



WHY A LARGER, 250 GRAM SAMPLE GIVES YOU MORE ACCURATE GRAIN TEST. Instructions from the Department of Agriculture suggest that a 2 quart sample of grain be taken from a carload or truckload of grain for accurate testing purposes. Authorities consider that 1/8 of this amount or 250 grams is an adequate amount to test for maximum accuracy, with a minimum of error. The proof of accuracy in using this larger 250 gram sample in the New model 500 RC Steinlite shows up in the repeatability of tests on the same sample.



USE THIS HANDY REPLY MAILER

TO GET PROMPT SERVICE, OR PHONE ANdover 3-2128

Seedburo Equipment Company
618 W. Jackson Blvd.,
Chicago 6, Ill.

☐ Ship me a Model 500 RC Steinlite for $495.00
(I will trade in model_____ serial #_____)

☐ Please send me more information on the New Model 500 RC Steinlite

NAME_____

COMPANY_____

ADDRESS_____ PHONE_____

CITY_____ STATE_____

----------Clip along outside dotted line, fold here, staple and mail today!----------

Postage Will Be Paid by Addressee

No Postage Stamp Necessary If Mailed in the United States

BUSINESS REPLY ENVELOPE
First Class Permit No. 11173 • Chicago, Ill.

SEEDBURO EQUIPMENT COMPANY
618-626 West Jackson Blvd.
Chicago 6, Illinois

"80-20" Fumigant keeps grain profits from slipping through your fingers

Stauffer's "80-20" wallops weevils, moths and other pests that damage your stored grain. It knocks out eggs, larvae, pupae and adults. You can market your grain at *top* prices, get bigger checks every selling season. "80-20" is not only the ideal fumigant for stored wheat, oats, rye, barley, rice, milo, corn and seed stocks, but it is mighty economical. And because it's available with F.I.A. (fire inhibitor added), it meets Underwriters' Laboratories specifications. Before the next grain harvest, ask your local dealer for your free copy of "How To Control Grain Insects." Or write us at 380 Madison Ave., New York 17, N. Y. STAUFFER—the folks who know the farm.

Stauffer Chemicals Since 1885

New York • San Francisco • Houston • Omaha • Los Angeles • Tampa
North Portland • Weslaco • Lubbock • Harvey • North Little Rock

FOR BEST SERVICE ON VITAMINS A&D

ALL TYPES — ALL POTENCIES
PLUS
PREMIXES

Call

RUDY ESCHENHEIMER COMPANY

BOX 147
CHILLICOTHE
MISSOURI
PHONE 1047

Serving the Feed Trade For Over 20 Years

TABLE 4. Average Weight and Price of Live Birds for Selected States, 1957

	Average weight lb.	Average price per lb. cents
Maine	3.8	19.5
Delaware	3.4	19.4
Maryland	3.4	19.4
Georgia	3.2	18.0
Alabama	3.2	18.0
California	3.2	21.6
Virginia	3.1	18.5
North Carolina	3.1	17.9
Mississippi	3.1	18.3
Texas	3.0	18.9
Arkansas	2.9	18.2

1957 they averaged 3.8 lb. Arkansas produces the smallest birds; they averaged 2.9 lb. in 1957 (table 4). Southern states tend to produce the smaller birds.

Some variation occurs also in the average price received per pound for birds produced in different areas. Except for California birds, the heavier ones tended to bring a little higher price than the lighter types (table 4). Prices of North Carolina, Alabama and Georgia birds averaged lower than prices of birds in other states.

This tremendous increase in production has been pointed out. Who are the people raising these broilers? About 80% of the broiler growers in both Georgia and Maine are reported to be full-time farmers. In Maine the growing of broilers is usually a full-time enterprise. In Georgia broiler flocks of a few thousand birds have been added as supplemental enterprises to other farming operations. Consequently most broiler growers in both states are classified as full-time farmers.

A similar situation exists in Arkansas, although in that state the trend is toward more production by part-time farmers. In Alabama it is estimated that more broilers are produced by part-time than by full-time farmers. This has come about because of an increase in industrialization in some of these areas. In both Texas and Delaware about half of the growers are full-time farmers.

FINANCING: With this background, let us take a look at the way the broilers are produced. In the older producing areas, the first broilers were produced independently. For example, in Delaware, where broilers have been raised for 25-30 years, many growers started on a cash, or open-account, basis. They grew broilers in this way for a number of years until they began to sustain heavy losses.

Gradually, in an attempt to shift part of the risk, they switched to a share type of arrangement. Various types of share arrangements were used.

These share arrangements were used during the 1940's into the 1950's. The guarantees of $40 and $50 per 1,000 were not used widely until the price break in 1954. Since that time they have been used more and more. Probably many other producing areas have undergone similar changes.

At present, it appears that not more than 3 to 5% of the broilers are produced independently. By independently, I mean with the grower's own capital or with capital borrowed from a bank or other lending institution. The remaining 95 to 97% are produced under some type of contractual arrangement.

The contracts in the different areas are basically similar in that they guarantee a return to the grower and also guarantee that he will suffer no cash loss from raising a particular flock. However, the guarantees vary in detail:

1. Flat guarantee per thousand birds, as $40, $50 or $60. Variations of this are, as in Delaware, the same guarantee plus 50% of profits, if any, and in Georgia, the same guarantee plus a bonus based on feed conversion and market price.

Other variations are $60 per thousand when they sell for 20¢ lb., $50 when they sell for 17-20¢ lb. and $40 when they sell for less than 17¢ lb.

2. Guarantee of 2-3¢ lb. sold or 5¢ a bird sold. In Texas, Alabama and Arkansas the same guarantee plus a bonus for low feed conversion is common. Another variation is the same guarantee plus a percentage of the profit.

3. Guarantee of ½¢ per week per bird delivered. In Maine the same guarantee plus a share of the profits is common. Generally, the grower gets all the profits up to ¾¢ and any profits beyond ¾¢ are split half-and-half between grower and contracting firm.

4. Guarantee price (for example, 19¢ lb.).

5. Guarantee price when loss is shared equally between feed dealer, hatchery and processor, as in California.

Returns under these different plans are similar. The returns under plans of $40-$60 per 1,000 birds started, 2¢ lb. of broiler sold, 5¢ per bird sold or ½¢ week per bird sold are very close (table 5). Therefore, it is the amount of the bonus for feed conversion or percentage of profit that makes the difference in returns to the grower. The 3¢ a bird and the 1¢ a week per bird are not used to any great extent under existing conditions.

Contract Financing

Why has contract production become prevalent? What is the relationship between contract production and financing? As most contracting is with feed dealers, most people refer to feed dealers as financing the production of broilers.

In general, the grower furnishes the broiler house, equipment and labor with which to grow the birds. A feed dealer or contracting firm furnishes the feed, chicks and other supplies. As the feed dealer usually

TABLE 5. Comparison of Returns for Selected Contract Plans

Birds or pounds	Plan	Return dollars
1. 10,000 birds	$40-$60	400-600
2. 30,000 lb.	2c	600
3. 10,000 birds	5c	500
4. 10,000 birds	½c per wk.	500
5. 30,000 lb.	3c	900
6. 10,000 birds	1c per wk.	1,000

52 LESSON FEED SALES TRAINING COURSE

BEST SELLING IDEAS FOR FEED SALESMEN AND GOOD DEALERS

Now at a reduced cost you can get the same Training Course that hundreds of leading Feed Executives have purchased. You get 15 Books on "How to Sell Feed Today" . . . 12 Books on "Animal Health Problems" and 25 Books on "Know the Answers Quiz" . . . all 52 lessons for $19.24, while the supply lasts. Buy them for your Salesmen and Dealers. 5 sets at $15.00 each . . . 10 sets at $13.00 each . . . 25 sets at $12.00 each.

No words or pictures can make you realize the helpfulness of this Training Course. You must SEE and examine it to appreciate its value of over $100.00. That's why we offer to send the entire 52 lessons on 10-day examination. Send coupon today to TOBIAS ENTERPRISES, 326 N. Michigan Ave., Chicago 1, Ill.

MAIL COUPON TODAY
FREE 10-DAY EXAMINATION
ORDER the 52 LESSONS TODAY for only . . . $19.24

Tobias Enterprises
326 N. Michigan Avenue, Chicago 1, Illinois
Please send on 10 DAYS FREE EXAMINATION one complete set of your 52-lesson Sales Training Course plus the 15 Quiz Questionnaires on "HOW TO SELL FEED TODAY". Within 10 days I may return it without obligation...or you may bill me $19.24 for the complete set which you send.
It is agreed that if we order more sets for our Salesmen and Dealers we are to only pay the quantity rate for the first set.

Firm Name_____
Address_____
City and State_____
Individual_____

retains title to the chicks, he is really investing in the operation.

The amount of capital needed to grow out a flock of broilers is considerable. It s not unusual to have $5,000-$10,000 invested in feed, chicks and supplies for one flock of broilers.

Most growers are not willing to invest that much capital, even if they have it, to raise a flock of broilers. Consequently it is the unwillingness of growers to accept all the risks of investing in chicks, feed and other supplies that has led to the contracting of broilers.

In a recent study made in Delaware it was found that most growers were able to finance their own operations but were not willing to accept the risks of doing so.

In addition to the investment by the feed dealers in production supplies, there is some financing of housing and equipment. In Delaware, individual growers provide the housing and equipment used in producing 75% of the broilers.

Many of the broiler houses were bought with a tract of land or were built by the growers with timber from their own farms. Only 14% reported that they had obtained credit for broiler house construction.

Construction Financing

Broiler growers were willing to borrow money for construction of broiler houses. Much of this credit was obtained from local banks or the National Farm Loan Assn. under long-term loans.

Other area reports indicate that individuals and lumber companies also finance construction of broiler houses. Most of these construction-type loans are secured by real estate.

Earlier, it was reported that the contracting firm, usually the feed dealer, furnished or arranged for all of the supplies necessary to grow a flock of broilers. Where did these contracting firms obtain the funds with which to procure these supplies?

In Delaware, it was estimated that 20-25% of the investment by feed dealers in feed and chicks was financed through banks. Another 20-25% of the investment was financed through credit extended by feed manufacturers.

Little is known as to the terms on which credit is extended by feed manufacturers to retail dealers. However, it is probable that some retail feed dealers have been kept in business during periods of low broiler prices by means of credit extended by feed manufacturers.

The remaining 50-60% of the investment of feed dealers in broilers was supplied from dealers' funds. Some feed dealers were able to supply all their own capital needs.

VERTICAL INTEGRATION: Vertical integration has different meanings to different people. For purposes of this discussion, we shall consider it as the combination of two or more of the production functions under one control, or ownership. Some people consider the growing of broilers under contract as a form of vertical integration.

If the feed dealer owns or operates his own hatchery or processing plant, this would be a partially integrated firm.

In production of broilers we think of hatching, feeding and processing as the three main functions of an integrated firm. There are very few completely integrated firms, but there are a number of forms of partial integration.

In most areas except Maine, contracting is done chiefly with feed dealers. In general, the feed dealer has no financial interest or control in any hatchery or processing plant. Some feed dealers mix their own feed and others merely handle bagged or bulk feed.

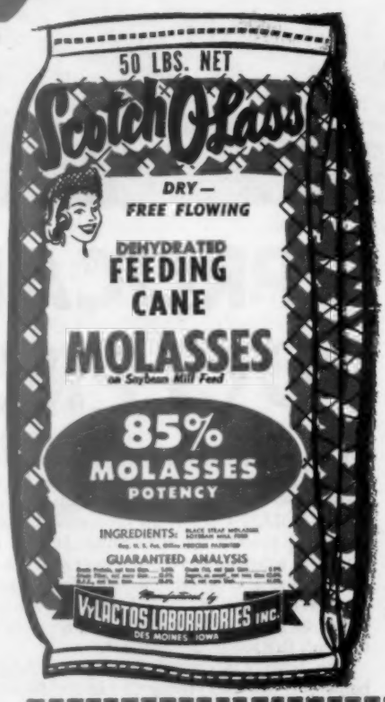
A small percentage also own or have control of hatcheries or processing plants, or both. These firms are considered to be at least partially integrated.

Another important relationship between feed dealers and processors takes the form of working arrange-

The Only Roller Mill That Does Everything
PEERLESS ALL-PURPOSE ROLLER MILL
CRIMPS-CRACKS SMALL GRAIN without dusting
GRANULATES EAR CORN without dusting
The Peerless "All-Purpose" Commercial Roller Mill answers the growing demand for a mill that will crimp-crack all small grains, as well as ear corn. More and more livestock and poultry men are demanding coarser, dust-free feed because it's more palatable, more digestible, less wasteful and improves feeding results 10% to 20%.
Write today for complete information about Peerless Commercial Roller Mills
PAT. APPLIED FOR
PEERLESS EQUIP. CO., INC. Dept. 406, Joplin, Mo.

VAN DUSEN HARRINGTON
DIVISION
F. H. Peavey & Co.
GRAIN SOYA BEANS FLAX
Founded 1852
MINNEAPOLIS Pv DULUTH

IT PAYS TO SELL
Scotch O Lass
DRIED BLACKSTRAP
MOLASSES
FOR PRESERVING
SILAGE



IT COSTS LESS Your customers get more for their money. Scotch O Lass is BOTH a feed and silage preservative. Three-fourths of the feeding values in Scotch O Lass are retained in the silage. Works wonders with grass silage.

FREE . . . $7.50 BILLFOLD Your customers receive fine quality billfold with each ton of Scotch O Lass or Omalass they purchase.

NATIONALLY ADVERTISED Ten leading farm magazines are telling your customers about the Free Billfold, and the many advantages of using Scotch O Lass for preserving silage.

SEND COUPON FOR COMPLETE DETAILS

Vy Lactos LABORATORIES, INC.
1901 East Euclid Avenue
Des Moines 13, Iowa

Vy LACTOS LABORATORIES, INC.
1901 East Euclid Ave.
Des Moines 13, Iowa
Please send me complete details and prices on Scotch O Lass.
Name.....
Company.....
Street.....
City.....State.....

LONFOSCO Soft Phosphate with Colloidal Clay
Prepared by: Lonoala Phosphate Co. High Springs, Fla.
Distributed by: Warren-Douglas Chemical Co.
1513-15-17 Burt St., Omaha, Neb.

More profit on feed when you mix your own brand!
BROWER Whirlwind FEED MIXER
Earn up to $1.50 profit per bag by mixing your own brand of feed with the BROWER MIXER . . . the extra profits soon pay for it! WHIRLS the ingredients instead of just tumbling them . . . mixes a perfect blend in about 10 minutes . . . fast, economical! Built for years of trouble-free service. Five sizes. World's Largest Selling Mixer!
BROWER MFG. CO., 566 N. Third St., Quincy, Ill.
Write for FREE CATALOG

ments or affiliations. These relationships have been found in some areas of both California and Georgia. They cover both sharing the risk in case there is a loss on the flock and assuring a market for the birds when they are put out on contract.

Contracts with Processors

In Maine the usual grower-dealer relationship does not hold. Here most of the contracts are with processors, some of which have feed businesses, and hatcheries. Integration has probably developed further in Maine than in any other area.

There is a trend toward greater integration in broiler production and marketing. Working agreements with processors or hatcheries have helped feed dealers bear the risks of production. However, some feed dealers take over other production functions with the idea that if one does not show a profit the other will.

Vertical integration has advantages because it (1) relieves the grower of the responsibility of providing operating capital; (2) makes larger production units possible, thereby permitting more efficient operation; (3) provides a constant, flexible supply of chicks; (4) provides more "know-how" for the raising of chicks, and (5) removes much of the risk of production.

There are a few disadvantages of vertical integration. It reduces the independent status of growers, and causes a tendency toward excess production.

MARKETS FOR BROILERS: In 1956 the per capita consumption of broilers reached 16.7 lb., a gain of 3 lb. over both 1954 and 1955 (table 6). The 1957 figure is not available but, because of the low price of broilers in 1957 and the plentiful supply of birds, there is reason to believe that it will be higher than the 1956 figure. From incomplete data on market receipts it appears that broilers from the major producing areas are sold in the following markets:

Producing area	Markets
Delaware	New York, Philadelphia, Boston
Maine	New York, Boston
Georgia	Chicago, Detroit, Cleveland
Alabama	Chicago, Detroit, Boston, Los Angeles
Arkansas	St. Louis, Los Angeles, Chicago
Texas	Los Angeles

TABLE 6. Per Capita Consumption of Broilers in the U.S.

	lb.
1940	1.9
1945	5.0
1950	8.6
1951	10.4
1952	11.7
1953	12.3
1954	13.7
1955	13.7
1956	16.7

Summary: The southern states, particularly Alabama, Georgia and North Carolina, are expanding production rapidly. They are in an advantageous position from the standpoint of a good growing area, available labor and apparent low production costs (particularly those of fuel and housing).

Feed mills and processing plants are moving into these areas. However, these states are at a disadvantage from the standpoint of available feed grains and location of markets.

Production in California declined in 1956, but efforts are being made to reduce production costs so that the state can compete with other producing areas.

Delaware and New England have an advantage in being close to good markets. If growers in these two areas can continue to reduce their costs of production, they should be able to meet the competition from other areas.

West Virginia Feed Sales Show Decrease

CHARLESTON, W. VA.—Commercial feedstuffs sold in West Virginia during the last six months of 1957 totaled 190,818 tons, a decrease of 14,076 tons from the corresponding period of 1956, according to J. T. Johnson, commissioner of agriculture.

Retail value of these feeds amounted to $17,964,866, which was 10% below the amount received from sales during the last half of 1956.

The following tonnages were reported sold: Poultry feeds, 110,017 tons or 57% of the total; dairy and other cattle feeds, 35,939 tons or 19% of the total; other livestock feeds, 13,176 tons, 7% of the total; rabbit and pet foods, 7,652 tons, 4% of the total; grain products, 20,422 tons, 11% of the total; protein feeds and minerals, 3,612 tons, 2% of the total.

Poultry feeds sold were: Broiler feeds, 52,204 tons; laying mash, 28,259; turkey feed, 15,176; scratch grains, 9,171, and chick feed, 5,207.

Cattle feed sold included: Dairy, 34,169 tons; beef, 992; calf, 718; miscellaneous cattle, 60.

Feeds listed under "other livestock" included: Hog feed, 8,544 tons; horse feed, 4,199; miscellaneous livestock, 313; sheep and goat feed, 120 tons.

Dog food totaled 6,461 tons of the 7,652-ton total shown for rabbit and pet food, and of the total of 20,442 tons indicated for grain products, wheat mill products counted for 10,015 tons and corn products 9,224 tons.

Retail feed prices during the last 6 months of 1957 were generally lower than for the same period of 1956. Based on prices reported monthly by retail sales outlets, prices averaged from $3 to $6 ton lower, the report indicated.

Turkey Growers Win Awards in Illinois

VIRGINIA, ILL. — The annual Critic Feeds turkey awards were presented at a banquet recently at the Virginia Country Club.

Awards were given to eight senior growers and one junior grower for outstanding jobs of record keeping. The presentations were made by Harold Leezer, Havana, Ill., and Ralph Canavan, Quincy, Ill., both turkey servicemen for Critic Feeds, manufactured by Beardstown Mills Co.

PROCADIAN® UREA PUTS PROFITS IN FEED

When you use PROCADIAN Urea as an ingredient in your mixed feeds and concentrates for cattle and sheep, you and your customers benefit many ways. PROCADIAN Urea is an economical, concentrated source of protein for ruminants. It also is a quick source of nitrogen for the micro-organisms that build protein and also break down roughage into digestible form. With PROCADIAN Urea they work faster and better to give cattle and sheep improved feed value from all the roughage they eat.

The high concentration of PROCADIAN Urea helps you put everything else in the feed bag that is needed to build high feed efficiency—vitamins, minerals, energy and other essentials. Your formulating job is easier when you use PROCADIAN Urea.

This year Nitrogen Division is again expanding its urea production facilities, already the nation's largest. You can get PROCADIAN Urea promptly in quantity, pure, fresh, free-flowing and packed in moisture-resistant bags. You also get the sales-building advantages of powerful PROCADIAN advertising that tells your customers to "look for urea on the tag." When you need urea, it pays to buy PROCADIAN!

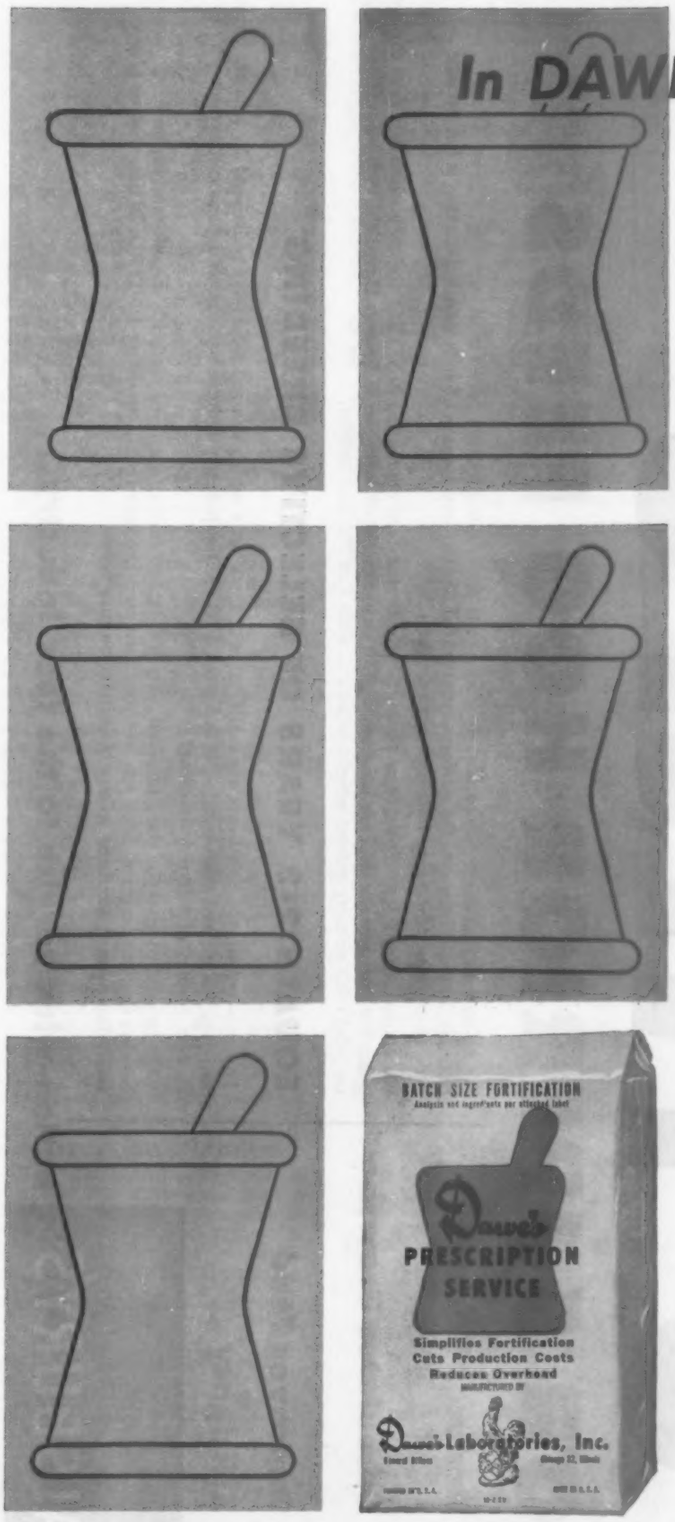
Write or telephone

Allied Chemical **NITROGEN DIVISION**

Hopewell, Va., P.O. Drawer 131 ..... Cedar 9-6301
Ironton, Ohio, P.O. Box 98 ..... Ironton 8-4366
Omaha 7, Neb., P.O. Box 166 ..... Bellevue 1464
Raleigh, N. C., 16 W. Martin St. ..... Temple 3-2801
Columbia 1, S. C., 1203 Gervais St. ..... Alpine 3-6676
Atlanta 3, Ga., 127 Peachtree St., N.E. .... Jackson 2-7805
Memphis 9, Tenn., 1929-B South 3rd St. Whitehall 8-2692
Columbia, Mo., P.O. Box 188 ..... Gibson 2-4040
Indianapolis 20, Ind., 6060 College Ave. .... Clifford 5-5443
Kalamazoo, Mich., P.O. Box 869 ..... Kalamazoo 5-8676
St. Paul 4, Minn., 45 N. Snelling Ave. ..... Midway 5-9141
San Francisco 4, Cal., 235 Montgomery St. .... Yukon 2-6840
40 Rector Street, New York 6, N. Y. ..... Hanover 2-7300
Export Sales Office, New York 6, N. Y. ..... Hanover 2-7300

COLUMBIA SOFT PHOSPHATE
IMMEDIATE DELIVERY
LOW COST
WRITE FOR INFORMATION
Columbia Phosphate Co.
1007 Washington St. Louis, Mo.
COLUMBIA PHOSPHATE CO. PHOSPHATE PRODUCTS

Marion MIXERS
ELIMINATE GUESSWORK IN MOLASSES MIXING!
Complete accuracy in Molasses mixing bag after bag! One mixer For All Your Mixing Needs. Mixes Both Dry and Molasses Feed.
SEND FOR FREE LITERATURE:
RAPIDS MACHINERY CO.
627 11th Street Marion, Iowa



In DAWE'S Prescription Service

dependability makes the difference

Entrust the compounding of your feed fortifiers to the skill, accuracy and dependability of Dawe's. In bag after bag, batch after batch, you'll get consistent dependability, uniform quality . . . the finest ingredients carefully compounded to your precise formula . . . that's Dawe's Prescription Service. It's the modern way feed manufacturers save time and money. Consider the convenience of custom-blended, custom-packaged fortifiers as against scattered buying and the handling of individual micro-ingredients.

You can depend on Dawe's Prescription Service to simplify your feed fortification. The cost? . . . You pay for ingredients only. Write for quotations on your feed fortifiers compounded and packaged to your specifications. You'll like Dawe's fast, personalized, dependable service.

PLANTS:
Chicago, Illinois • Peoria, Illinois • Fort Worth, Texas
Auburn, Washington • Newaygo, Michigan • Trenton, New Jersey

WAREHOUSES:
Atlanta, Georgia • Buffalo, New York • Columbus, Ohio
Denver, Colorado • Kansas City, Missouri • Madison, Wisconsin
Memphis, Tennessee • Minneapolis, Minnesota • Roanoke, Virginia
Los Angeles, California • Stockton, California

FOREIGN OFFICES:
Belgium—13 Courte rue des Claires, Antwerp
Italy—Corso Magenta 81/83, Milan
Mexico—Sierra Leona 755, Mexico 10, D. F.
Venezuela—Apartado 3050, Caracas

World's Oldest and Largest Specialists in Vitamin Products for Feeds

Dawe's

DAWE'S LABORATORIES, INC.
4800 South Richmond Street—Chicago 32, Illinois

EVEN BETTER THAN CLAIMED

DR. SALSBURY'S 3-Nitro®

FOR SUPERIOR HOG FEEDS

- **Reduces Backfat**
- **Stimulates Growth**
- **Improves Feed Efficiency**

It's no new experience for us to find that field tests prove our products better than our conservative claims but new, impartial data on the performance of 3-NITRO in hog feeds is of such significance that it has become *"the most important swine nutrition news in years."*

Now, new reports from Iowa State College indicate that feed containing 3-NITRO not only stimulates fast, thrifty gains *but puts more solid, lean meat on hogs!* Tests reported at Iowa Swine Feeders Day, Feb. 19th, show hogs on 3-NITRO actually gained weight faster . . . *with 7 to 9% less backfat!*

EQUALS 2-3 YEARS OF SELECTIVE BREEDING

This new report not only bears out earlier tests at Iowa State which showed 3-NITRO stimulated 16% faster gains with 5% better feed efficiency . . . it indicated 3-NITRO apparently reduces backfat on a basis comparable to 2 to 3 years of selective breeding!

We'll be glad to give you the additional, detailed data to further acquaint you with the outstanding profit benefits that can accrue to both you and your customers through feeds containing 3-NITRO. Write, wire or phone today for prompt attention to any questions you may have.

FEED PRODUCTS DIVISION
DR. SALSBURY'S LABORATORIES
Charles City, Iowa

Dr. SALSBURY'S

nation-wide service to the feed industry

Lambs Gain Better on Pelleted than on Baled Hay in Feeding Trials

SAN FRANCISCO—An experiment conducted by three researchers at the University of California shows that cattle and sheep fed pelleted alfalfa hay make greater gains than those fed baled hay.

N. R. Ittner, Dr. J. H. Meyer and Dr. G. P. Lofgreen, department of animal husbandry, made a study on the feeding of pelleted hay to steers at the Imperial Valley Field Station during the winter of 1956-57.

Alfalfa taken from the same field was ground through a 3/64-in. screen and then pressured into pellets 13/64 in. in diameter. Chemical analysis showed that the hay and pellets were essentially the same in composition.

The lignin analysis revealed that the total digestible nutrient value of the two forms of hay was 60% for the pellets and 59% for the long hay.

The feeding experiment was conducted over a period of 167 days and involved two lots of three steers each which were fed, free choice, both forms of the hay. Each steer received in addition 2 lb. of barley and 2 lb. of long oat hay daily.

They were weighed each month after standing over night without feed or water. The test showed that the animals fed the pelleted hay gained .37 lb. more a day than those fed the baled hay. Reason for the gain was increased consumption of the hay as pellets, according to the researchers.

The experiment showed that animals fed high quality roughages can be fattened with a minimum quantity of grain. However, not all rations in the pellet form would increase gains.

"Chief advantage of the pelleted feeding of alfalfa is the reduction and transformation of bulk into a free-flowing form like grain, thus reducing handling requirements. However, the high cost of the pelleting process presents a distinct disadvantage in the use of this type of feed," according to the research report. Some cattle feeders are using forms of pelleted hay as range supplement, and it is also being used in lamb fattening.

Construction Planned

OTHELLO, WASH. — Construction of a $300,000-400,000 bean plant is planned by the Washington Cooperative at Othello. Storage capacity of the new structure will be 250,000 bags of beans. It will be adjacent to the existing co-op building, and will be equipped to handle and process grain and seed as well as beans. Included in the construction will be eight bean elevators. It is planned that the new plant will service the Othello, Royal Slope, Mesa and Eltopia farming areas. The new plant may be in operation by Aug. 1. Other Washington Cooperative plants in the state are principally devoted to turkeys and poultry. The Basin plant will mark a new, major interest for the concern, according to Merle Engles, Othello manager.

Changes in Livestock Industry Described

SAN FRANCISCO — The past 10 years have produced a revolution in the U.S. livestock industry, according to Dr. George Mehren, director of the Giannini Foundation at the University of California.

Speaking before a recent meeting of the California Farm Bureau Federation livestock department, Dr. Mehren declared that at the feeder level no one knows what price cattle at the killing floor are really bringing because of the many ways in which cattle are now sold. He added that the packer does not know what his own costs are and, what is more important, does not know what his competition's costs are.

Dr. Mehren continued by saying that the system is so different now that trying to grow and feed the same way as it was done 10-15 years ago is doomed to failure. "You can't use the market as a garbage can to peddle anything you have," he said.

The advent of the supermarket has brought about the need for a uniform product, stable supply and knowledge in advance of cost and location of meat supplies.

In conclusion, he said, "Those who do not adjust to what is happening are going to die and the death will not be a gracious one."

Dates of Arkansas Conference Changed

FAYETTEVILLE, ARK. — The dates of the Arkansas Formula Feed Conference have been advanced one week to Sept. 18-19, Prof. E. L. Stephenson, University of Arkansas, chairman of the event, has announced. The change was made to avoid any conflict with the World's Poultry Congress, which will be in session in Mexico City on the dates originally chosen.

FIRE DESTROYS ELEVATOR

KENNEY, ILL. — Fire destroyed the Kenney Grain Elevator and annex recently. Damages may exceed $200,000, Roy Ubbenga, elevator manager, said. Destroyed with the buildings were 75,000 bu. corn and 7,000 bu. beans. The flames also threatened to destroy two large concrete storage bins containing soybeans.

Is your office getting too few copies of FEEDSTUFFS?

MAIL THIS COUPON TODAY

FEEDSTUFFS
2501 Wayzata Blvd., P.O. Box 67
Minneapolis 1, Minn.

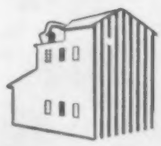
Please enter my subscription:
☐ CHECK ENCLOSED ☐ BILL ME

NAME .....
ADDRESS .....
CITY .....
STATE .....

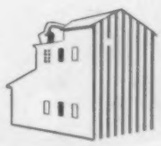
Type of Business:
☐ FEED MANUFACTURER
☐ FEED DEALER
☐ OTHER .....

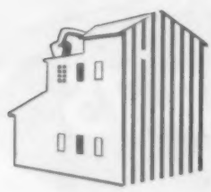
RATES: $4 a year, $7 for two years, in U.S., Possessions and Canada. Foreign: $3 a year additional.

GROWING...

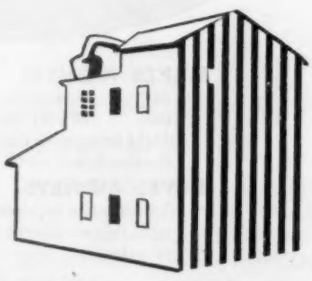


by feeds and services—





Ultra-Lifed Feeds and Services that is.



And there's a reason. The Ultra-Lifed Program gives you more than feed fortifications. It gives you exclusive vitamin and trace mineral blends to make feeds second to none in quality, but that carry a greater profit margin for you. In addition, Ultra-Life helps you sell your feeds with exclusive feeding programs and sales programs.

From the Atlantic to the Pacific, from Canada to South America, Ultra-Life fortifications and services for you are unmatched.

The revised edition of the Ultra-Life Book is now available—contains latest ingredient analysis information, energy tables, feed price conversions, and many other tables and charts of value to feed manufacturers. Write today on your letterhead for your free copy.

LABORATORIES, INC.

Main Office and Plant East St. Louis, Illinois

One of the Country's Oldest and Largest Manufacturers of Vitamin and Trace-Mineral Products

CAPITAL COMMENT

By John Cipperly

WASHINGTON — The turkey industry appears to be on the verge of asking legislation which would establish a duality of control over that industry through a joint operation between an industry committee or commission and USDA for supervision purposes.

(Also see questions and answers on the proposal on page 66.)

The inclusion of USDA is said here to be an attempt to bring from USDA a semi-governmental administrative veto over the available actions of an industry group.

It is understood here that this plan is to be incorporated with legislation now being prepared by National Turkey Federation attorneys to grant the industry group the necessary government sanctions to operate along the lines the bill would propose. The bill is at the draft stage and has not been introduced in Congress.

The measure would empower the industry control group, subject to approval by USDA, to impose fees collected by the commission to promote research and launch promotions for the turkey industry, and to use part of the funds to purchase surplus production for storage until the market could absorb such excess production as would appear to occur in any crop year.

Disposal of the excess production—one of the goals of the plan would be to prevent excess production—would be accomplished through export sales or through sales to public institutions in this country.

Observers here say an outline of what is planned seems to provide a pattern of operation somewhat similar to that of the Commodity Credit Corp. It is said that purchase of surpluses would be comparable to CCC operations in taking over grains under loan defaults which have become surpluses.

Some persons say that production controls might result through a fee system levied on the industry to raise funds to carry out promotion and other programs. They say that the fee could be a tool of flexibility since, through fees, each phase of the industry could be brought under a commission concurrence if the fees were made so high as to be punitive.

Danger Seen

In USDA circles, some persons say that this move on the part of the turkey industry appears to be an attempt to walk voluntarily into a system of controls supposedly under industry operation but which, it is said, would contain the problems of industry controls now exerted in major form when operated exclusively by the government under CCC.

These government officials say there is utter fallacy in controls over any farm commodity from a central point of decision and arbitrary judgment whereby freedom of individual action is restricted. They cite the long history of attempts to run the national farm economy through government domination, under which the CCC now faces one of the worst pile-ups of grain surpluses this country has ever seen.

USDA officials express surprise that the turkey group would embark on a government technique after experience wherein year after year, when the government granted aid in buying up surplus production, there always followed another year or surplus. They say it has only been in the current year, after USDA rejected support buying last year, that the industry as a whole now would appear to be headed for a showing of reasonable profits.

"Baseball Night" Set For Poultry Congress

KANSAS CITY — Poultrymen will have a chance to see the Cleveland Indians play the Washington Senators in a night game during the 42nd annual American Poultry Congress & Exposition of the American Poultry & Hatchery Federation in Cleveland July 22-24.

July 22 has been designated "hatcherymen's baseball night." Game time is 8 p.m.

Tickets can be ordered through APHF; orders must be in on or before June 30. Ticket requests should be sent to American Poultry & Hatchery Federation, 521 E. 63rd St., Kansas City 10, Mo. Checks should be made payable to the federation. Prices range from $1.75 for reserved seats to $2.50 for box seats.

MAKES MONEY!
Sell your customers a feed that produces more eggs and you will sell more feeds. It's easy . . . just add Marcol B-75, the modern liquid fat additive, to your present ration. Field tests prove that Marcol B-75 helps get more early eggs, gets pullets into peak production faster, and holds production during stress periods.

SAVES MONEY!
Your present equipment can mix up to three batches of feed with Marcol B-75 to one with tallow. Marcol B-75 actually saves you money by cutting production time up to two-thirds!

Check these other important advantages:

- WILL NOT DETERIORATE OR BECOME RANCID
- SETTLES DUST
- IMPROVES COLOR AND APPEARANCE OF FEED
- NO SETTING-UP PROBLEMS
- MORE DIGESTIBLE THAN ANIMAL FATS
- MIXES UP TO THREE TIMES FASTER THAN TALLOW

Make more profit for your mill and your egg producers by adding Marcol B-75 to your present laying feeds.

MARCO CHEMICAL COMPANY
P. O. BOX 8 FORT WORTH 1, TEXAS

Herman Nagel's
Trace Mineral
CONCENTRATE

Where only trace minerals are to be added, Herman Nagel's Trace Mineral Concentrate supplies all eight, in correct balance.

THE HERMAN NAGEL CO.
53 W. Jackson Blvd., Chicago 4, Ill.

NOW...Control Feeding Rate Of Hay As Well As Grain...

REMOTELY!
with a
FORDS
push button
remote-control
HAMMERMILL
Write today for complete details and free illustrated literature

MYERS-SHERMAN COMPANY
2601 S. Illinois St., Streator, Ill.

New nf-180 treatment in feeds

Proves best way yet to control hog scours

...Nf-180 knocks out bloody dysentery and necrotic enteritis

Nf-180 is the first scours-treating feed medication that is really effective. Hog specialists and farmers in six corn belt states have tested it and they all report success. They found too that nf-180 straightened out runts, increased feed consumption.

Take the case of an Ohio hog raiser, for example. He tried every treatment he knew, including the arsenicals to rid his 300 hogs of bloody scours. Nothing helped . . . not even a 6 week treatment of using a 400-gram level of an antibiotic. A swine disease specialist recommended nf-180 (at 300 grams furazolidone per ton of feed) for two weeks. Seven days later he reported, "This is the first time in months that there hasn't been a trace of scouring in my herd."

In another case, 30 five-week-old pigs failed to respond to high-level antibiotic treatment for scouring. The feeder gave them nf-180 (supplying 300 grams furazolidone per ton) for 14 days. The scouring was completely controlled.

In case after case such as these, nf-180 successfully proved itself against the two most severe forms of swine enteritis, necrotic enteritis due to *Salmonella choleraesuis* and vibrionic (bloody) dysentery.

Scientists credit nf-180's success to its unique germ-killing ability. Nf-180 is one of the new nitrofurans, a group of antimicrobials whose success is based on the simple fact that disease germs, too, need food to live. By interfering with germs' nutritional balance, nf-180 starves them . . . kills them. That's why germs don't become immune to nf-180 or thrive on it as so often happens with former "miracle drugs." As a result nf-180 can do a superior disease control job where many other drugs fail.

New nf-180 treatment gives you a big sales edge in the hog feed market

Save a farmer's hogs from the devastating losses incurred by Necro and bloody dysentery . . . and you save a customer or gain a new one for the rest of your hog feed business.

Now you can be ready with the truly effective nf-180 treatment for scours. Even where other treatments have failed, nf-180 has come in and done the job . . . stopped scouring, put hogs back on feed, made them "good-doers" again so they go on to market.

It's a big opportunity for ready-mixed feeds and custom-mixing service. Nf-180 is available in the form of a new product . . . especially designed for local mixing. It is "Nf-180 Custom-Mix TEN" with 10 grams active drug *furazolidone* per pound. Follow mixing directions on the label.

The treatment: Feed a complete ration containing nf-180 at the rate of 300 grams furazolidone per ton (15 grams per 100 lbs. feed) for 10 to 14 days.

Get ready now — with the facts, the product and the service. You'll be helping your customers to better hog profits and yourself to better feed sales. Your Hess & Clark representative is ready with complete details. Or, write or call Feed Products Division for the "Nf-180 Swine Scours Service Kit."

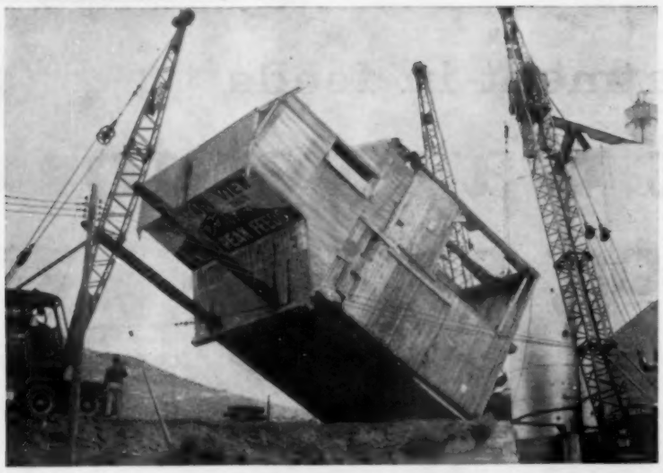
NT-6-3

nf-180® furazolidone

nitrofurans

HESS & CLARK, Inc.

Convenient Warehouses at: Kansas City, Mo. • Chicago, Ill. • St. Paul, Minn. • Ashland, Ohio • Memphis, Tenn. • Portland, Ore. • San Francisco, Calif. Glendale, Ariz. • Dallas, Texas • Buffalo, N. Y. • Lancaster, Pa. • Seaford, Del. • Charlotte, N. C. • Atlanta, Ga.



BIG MOVE—Mountain View Feed & Grain, Inc., created something of a stir in Colorado Springs when it moved a 60-ton elevator from one location to the firm's new plant three miles away. The new facilities more than double the firm's production capacity, according to Scott Fergusson and Harry Bornman, co-owners.

Feed Company Moves 60-Ton Elevator to New Plant Site

By J. B. Coutts
Feedstuffs Special Writer

Besides the day-to-day challenges of the feed business, Scott Fergusson was faced recently with the task of moving an elevator weighing 60 tons three miles to a new plant location in Colorado Springs, Colo.

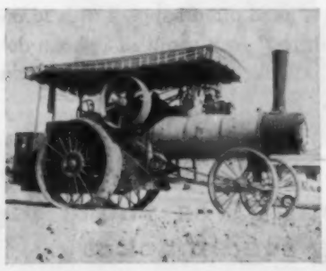
He and Harry Bornman own and operate Mountain View Feed & Grain, Inc., Colorado Springs.

Three 35-ton capacity cranes were called in to lower the structure, 20x24 ft. and 40 ft. high, onto a new foundation after a six-hour, three-mile trip.

"The building came through fine and not nearly as 'all shook up' as the hundreds of spectators who turned out to watch the building being moved through city streets," Mr. Fergusson commented.

The moving operation was prompted by growth in recent years and the need to have access to a railroad siding, according to Mr. Fergusson. Loading docks, an office building, molasses storage tanks and a 180x130 ft. warehouse were built at the new, 2½-acre site early this year. The new location is more accessible to customers and is in an area dominated by related industries, such as feeder pens, meat packing and slaughter firms.

The new $250,000 plant now includes—housed in the warehouse building—a Wenger multiple hard and soft pellet machine capable of turning out 30 tons of hard pellets and 20 tons of soft pellets daily. It also features a push-button, 40-ton capacity mill for rolled grains and a custom mixer for chicken, hog and cattle feed. The adjacent molasses storage tanks hold up to 380 tons.



ROADSIDE RELIC — This old-time steam thresher rig is practically a trademark of Mounain View Feed & Grain, Inc., Colorado Springs. The engine, recently moved to the company's new $250,000 plant, travels under its own power in local parades, ranch-farm celebrations and the firm's own sales promotions.

Expansion Plans

The pellet mill includes a crumblizer attachment. The new equipment provides the opportunity to expand horse feed production and to manufacture a wider variety of cattle feeds.

The company will maintain an operation at the old location, but it will be limited to local retail business only.

Mr. Fergusson said the new plant operation will include merchandising feeds at both the wholesale and retail levels. The firm makes and sells Sweet Peak Feeds and merchandises Valley and Gro-So fertilizers.

Expansion of its chemical fertilizer lines and entry into the insecticide, fungicide and veterinary product fields is in the firm's future plans.

Mr. Fergusson has been in the feed business for many years. He started his own mill in nearby Fountain, Colo., in 1944, and established Mountain View Feed & Grain at Colorado Springs in 1948.

Co-owner and nutritionist for the firm. Mr. Bornman has been in the feed retail and manufacturing business since 1931. His experience includes 15 years of being a sales manager. He worked four years as a nutritionist with Feed Products, Inc., Denver, and joined Mountain View Jan. 1, 1958.

Carl Timm spearheads the firm's sales effort, servicing the immediate Pike's Peak region. Seven other commission men cover the other parts of the state.

Mr. Bornman pointed out that with the completion of the new plant, the firm's marketing operations will be concentrated on direct selling to ranchers and feeders.

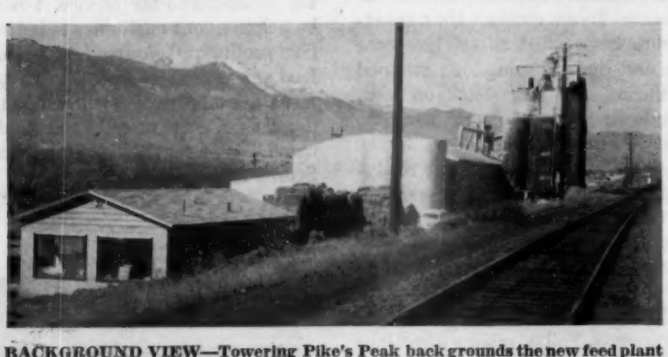
Advertising Program

The company does its advertising in local daily newspapers, surrounding smaller weekly newspapers and in cattle producers' journals such as the Colorado Cattle Guard and Record Stockman. It also does radio and direct mail advertising.

City newspaper advertising is directed toward horse owners, gardeners and, to a lesser extent, cattle raisers. Special price flyers are printed and mailed direct to all customers.

Mountain View personnel are active in feed associations, the local Chamber of Commerce, rodeo promotion and cattlemen's associations. Mr. Fergusson and Mr. Bornman attend county, state and national feed conferences.

Mr. Fergusson quotes the Colorado State Department of Agriculture as saying that 70% of beef and sheep feeds of all types are imported into the state, and he says that he expects his expanded plant facilities to make it possible to get some of that business.



BACKGROUND VIEW—Towering Pike's Peak back grounds the new feed plant of Mountain View Feed & Grain, Inc., Colorado Springs. The new plant includes an office building (foreground), molasses storage tanks, warehouse, feed mill facilities and elevators. The firm's old location in another part of the city will be maintained to serve local retail customers.

Meat Packers Seek Better Public Relations

DENVER, COLO.—The three major associations of the meat packing industry met for an industry conference at the Brown Palace Hotel in Denver recently.

Delegations from the American Meat Institute, the National Independent Meat Packers Assn. and the Western States Meat Packers discussed common problems affecting the welfare of the U.S. meat packing industry as a whole. The meeting, which brought the organizations together for the first time in history, was restricted to subjects on which the three groups could agree and work for betterment of the industry.

Preparation of an immediate public relations program concerning the cost of meat was the principal topic discussed. Aim of the public relations campaign is to give the general public a true picture of the reason why present meat prices have increased since the fall of 1957 over prices that existed for meat and meat products in the previous five years.

A long range public relations program was also discussed, aimed at placing the meat packing industry in a better light with the consuming public by showing that the industry does one of the most essential and effective jobs of processing agricultural products of any major agricultural industry in the country.

Each association was asked to develop a campaign in the area it covers. Plans for the long term public relations effort call for each association to submit a program at a future meeting of the committees.

1959 Wheat Price Support Reported

WASHINGTON—The U.S. Department of Agriculture has announced that the price support level for the 1959 wheat crop will be $1.81 bu., or 75% of parity.

As usual, this announcement reflects the minimum national average loan rate which would later be subject to upward revision if the wheat parity price should increase by July 1, or if the wheat supply relationship at that time changed to reflect a higher level of support.

The support program for the 1959 crop would only become effective if producers, in a referendum vote, approve marketing quotas for the crop by a two thirds favorable vote.

The level of 75% of parity is the level which the flexible price support schedule of the Farm Act of 1949 fixes as the statutory level available to the Secretary of Agriculture.

Freight Cut Sought For Export Soybeans

MEMPHIS—Railroads on the west side of the Mississippi River have filed a petition with the Interstate Commerce Commission to lower the freight rate on hauling soybeans for export only, dealers reported here.

They said that if permission is granted, the lower rates are expected to go into effect in about 60 days.

Dealers also said they are of the opinion that while the new rates will apply only to soybeans now, it is possible that wheat and other grains will be included later.

The reduction was reportedly sought to help the railroads compete with water carriers, which have been taking considerable business.

Railroads on the east side of the Mississippi River also are considering a petition on the same basis. The petition reportedly will be filed soon.

The rate for soybeans is now 25¢ cwt. Some areas will be given a reduction to 20¢, others 18¢, and still others 17¢. The east side lines' rates will be comparable.

The freight rates would be on soybeans to ports at Mobile, Ala.; New Orleans; Pensacola, Fla.; Baton Rouge, La., and Gulfport, Miss.

Dealers said the new rates will be a big benefit to grain farmers in the mid-South territory.

Dairymen Feed More Grain, Study Shows

ITHACA, N.Y.—New York state dairymen have stepped up their rate of grain feeding as a less expensive item in milk production.

Dr. C. D. Kearl, department of agricultural economics, Cornell University, explains the practice as a direct result of current farm labor being four times as costly per hour as 16 years ago. During the same period, he notes, milk prices increased only about 2.5 times.

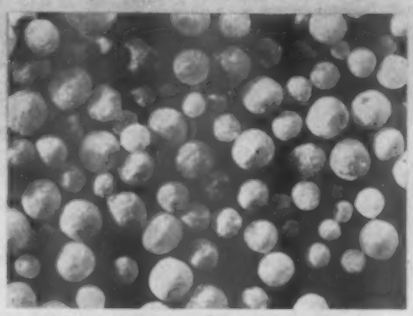
"At today's levels of milk production, about 35 lb. of grain are required to produce 100 lb. of milk," Dr. Kearl explains. "This compares with about 30 lb. 40 years ago. The feeding of more grain has been due to the fact that grain prices have not increased relative to milk prices, while other costs have gone up faster.

"Thus even with some loss of feed efficiency, it was desirable to feed heavier to spread fixed costs and achieve greater economy in the use of other inputs."

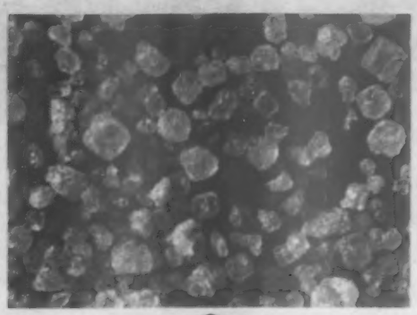
Faced with rapid wage increases, the farmers whose dairy operations Dr. Kearl studied have added to their herds, reduced labor per cow and spread overhead over a larger volume of production.

"Other farmers can and are doing some of these things," the economist declared. "Indeed, they must if they are to meet their competition well enough to make a good living."

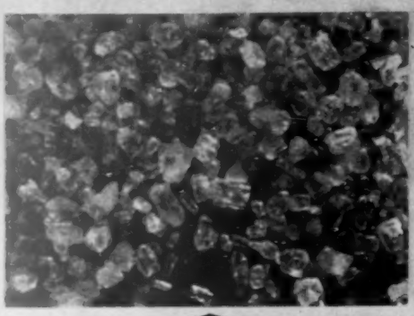
These Actual Photos Tell The Story...



Grace Micro-Prilled Urea Feed Compound — The smooth, round balls are free-flowing, non-caking



PRODUCT A



PRODUCT B

ALL 3 PHOTOS ARE 12 TIMES ACTUAL SIZE

Only Grace Urea Feed Compound

Assures

✓An Even, Uniform Mix Throughout

✓Easy Blending In Any Standard Mixing Equipment

because only Grace has

Micro Prilling *

* Micro-Prilling, an exclusive Grace process, produces a feed compound in the form of tiny balls that are truly free-flowing. Each ball is clay-coated to prevent caking.

SMOOTH • ROUND • FREE-FLOWING

Write for complete details.

Grace Chemical Company *A Division of W. R. Grace & Co.*

MEMPHIS—Edway Bldg., JAckson 7-1551 • CHICAGO—75 E. Wacker, FRanklin 2-6424

TAMPA—2808 S. MacDill Ave., 82-3531 • NEW YORK—3 Hanover Square, DIgby 4-1200

Worth Looking Into

New Products
New Services
New Literature

This reader service department announces the development of new and improved products, new services and new literature offered by manufacturers and suppliers. Claims made in this department are those of the firm concerned. Use the accompanying coupon to obtain the desired information.

No. 7014—Bulk Feed Unit

Seco, Inc., is announcing the addition of the "Cost Clipper Bulkmobile" to its line of feed mill equipment and bulk feed bodies. Exclusive slide gates

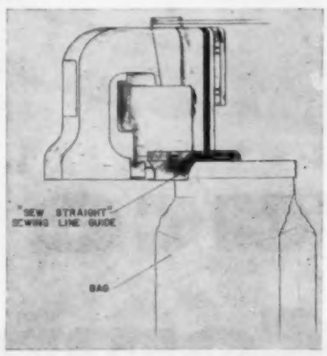
in each compartment have positive shut-off features. The auger system is said to greatly reduce pellet breakage because of low operating speed. Check No. 7014 on the coupon and mail it to secure details.

No. 7021—Egg Merchandiser

A new island refrigerated display case for marketing eggs has been added to the "T-Line," a line of fresh egg merchandisers sold nationally by Tobias Enterprises. The unit is on casters and can be rolled to any point of advantage in a store. The unit holds 168 dozen eggs which can be picked up from either side of the case. Check No. 7021 on the coupon and mail it to secure details. Please print or type name and address.

No. 7019—Sewing Line Guide

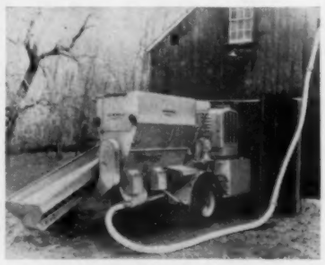
Users of open-mouth multiwall bags have available a new sewing line guide developed by the Union Bag-Camp Paper Corp. Called "Sew-Straight," the guide is said to insure



a constant, uniformly-sewn top closure and improves the appearance of the package. Closure within one inch of the bag top is permitted. Check No. 7019 on the coupon and mail it to secure details. Please print or type name and address.

No. 7020—Pneumatic Unloader System

A new pneumatic unloader system for "Daffin Feedmobiles" has been announced by the Daffin Manufacturing Co. Second, third and fourth floor feed storage bins can be filled with the unit, it is claimed. A 30-ft. tube,



which comes in two sections, permits "air-lifting" feed into bins or into existing delivery tubes. Lifts of up to 40 ft. are possible, the company states. The system may be added to all existing mobile units made by the company. Check No. 7020 on the coupon and mail it to secure details.

No. 7022—Grain Storage Booklet

A new informational booklet, "Quick Facts About Safe Storage," contains comments from grain authorities about how to effect safe, trouble-free storage of grain commodities, announces Hot Spot Detector, Inc. The 16-page, color-illustrated booklet is available without charge. Check No. 7022 on the coupon and mail it to Feedstuffs to secure the publication.

No. 7018—Airslide Fuidizing Conveyor

A double-swivel Airslide fluidizing conveyor which feeds many locations within its scope of movement has been announced by the Fuller Co. The unit comprises two lengths of Air-

slide sections coupled together in a double-swivel system and can be maneuvered by one man. It is available in standard sizes and capacities and will handle dry pulverized, crushed or granular material pneumatically in bulk. Check No. 7018 on the coupon and mail it to secure details.

Also Available

The following new products have been described in previous issues of Feedstuffs and information about them may still be obtained by jotting the appropriate number on the coupon and forwarding it to Feedstuffs.

No. 5990—Telescoping boxcar and truck loading conveyor, Power-Curve Conveyor Co.

No. 5991—Air-supported structure, CID Air Structures Co.

No. 5992—Catalog of dial scales, Howe Scale Co.

No. 5993—All-weather salt, International Salt Co.

No. 5994 — Dual-purpose hopper, Richardson Scale Co.

No. 5995—Grain aeration system, Dunbar Kapple.

No. 5996—Bulk-type self-feeder for hogs, James Manufacturing Co.

No. 5997 — Laboratory mixers, Sprout, Waldron & Co., Inc.

No. 5998—Animal health "wheel" for selecting health precautions for livestock and poultry, Chas. Pfizer & Co., Inc.

No. 5999—Truck body conversion, Simonsen Manufacturing Co.

No. 6000—Bulk feed body brochure, Baughman Manufacturing Co.

No. 6001 — Newly-designed chick feeder, Honeggers' & Co.

No. 6002—Folder on laying hen, Pillsbury Mills, Inc.

No. 6003—Coccidiostat-growth additive, Dr. Salsbury's Laboratories.

No. 6004 — Serrated-edge hard-faced hammer for hammermill, Paper-Calmenson & Co.

No. 6005—Fork lift truck, Towmotor Corp.

No. 6010—Screw elevator, Fort Worth Steel & Machinery Co.

No. 6012—Saccharin in pig feeds, Monsanto Chemical Co.

No. 6014—Truck hoist, Triumph Division, C. O. Bartlett & Snow Co.

No. 6018 — Antioxidant bulletin, Hercules Powder Co.

No. 6019—Cob crusher, the Andersons.

No. 6020—Coccidiostat, Merck & Co., Inc.

No. 6021—Feed and grain blower, Truck Grain Blower Co.

No. 6022 — Hammermill bulletin, Bryant Engineering Co.

No. 6023 — Punch card reader, Richardson Scale Co.

No. 6024—"Colony cage" plan for small laying flocks, Oakes Manufacturing Co.

No. 6025—Feed ingredients catalog, Merck & Co., Inc.

No. 6027—Pneumatic bulk feed trailer, Forster Manufacturing Co.

No. 6028—Feed processing publication, Sprout, Waldron & Co., Inc.

No. 6029—Grain aeration manual, Rolfes Grain Aeration Companies.

No. 6030—Premix program, Peter Hand Foundation.

No. 6031—"Snap-in" grease seal, Landers Mill Manufacturing Co.

No. 6032 — Hammermill bulletin, Seco, Inc.

No. 6034 — Drop-bottom mixer, Hayes & Stolz Industrial Manufacturing Co.

No. 6043—Air elevator for moving pellets, Clute Corp.

ROLLED OATS

GROUND OAT GROATS
FEEDING OATMEAL FLOUR
PULVERIZED WHITE OATS
PULVERIZED FEED OATS
HY-QUALITY OATMILL FEED
REGROUND OAT FEED
COARSE GROUND OATS

WERTZ FEED PRODUCTS
SIOUX CITY, IOWA
Phone 20545

for the
FEED INDUSTRY

- Chemical Analyses
- Vitamin Assays
- Drug Assays
- Spectrographic Analyses
- Chick Feeding Tests
- Consultation
- Formula Reviews

Write for Schedule of Charges

FEED SERVICE DIVISION
LIME CREST RESEARCH LABORATORY
R. D. 1, Box 67 Newton, New Jersey

LIMESTONE PRODUCTS CORP. OF AMERICA

Send me information on the items marked:

- ☐ No. 7014—Bulk Feed Unit
- ☐ No. 7018—Airslide Fuidizing Conveyor
- ☐ No. 7019—Sewing Line Guide
- ☐ No. 7020—Pneumatic Unloader System
- ☐ No. 7021—Egg Merchandiser
- ☐ No. 7022—Grain Storage Booklet

(PLEASE PRINT OR TYPE)

Others (list numbers) .....

NAME .....

COMPANY .....

ADDRESS .....

——— CLIP OUT—FOLD OVER ON THIS LINE—FASTEN (STAPLE, TAPE, GLUE)—MAIL ———

FIRST CLASS
PERMIT No. 2
(Sec. 34.9, P. L. & R.)
MINNEAPOLIS, MINN.

BUSINESS REPLY ENVELOPE
No postage stamp necessary if mailed in the United States

POSTAGE WILL BE PAID BY—

Feedstuffs

P. O. Box 67,

Reader Service Dept. Minneapolis 1, Minn.

CONVENTION CALENDAR

New Listings

For the convenience of readers who scan the Convention Calendar regularly for new listings, those added to the column in the current week appear ahead of the ones which have been entered previously. The following week they will be moved to their proper slot where they will remain until the event is held.

• • •

Aug. 4-9—Feed Microscopy Short Course, Texas Agricultural Experiment Station, College Station, Texas; sec., E. E. Brown, Assistant State Chemist, Texas Agricultural Experiment Station.

Aug. 18-19 — Kentucky Feed Conference, sponsored by Kentucky Feed & Grain Assn. and University of Kentucky; Campbell House, Lexington, Ky.; sec., Fred H. Schardt, Box 1914, Louisville 1, Ky.

Sept. 11-12—Iowa Nutrition Conference; Iowa State College, Ames, Iowa; chm., Dr. Walter Woods.

• • •

May 11-16—Grain Elevator & Processing Superintendents; Hotel Pick-Nicollet, Minneapolis, Minn.; sec., Dean M. Clark, 1115 Board of Trade Building, Chicago 6, Ill.

May 18-20—Grain Processing Machinery Manufacturers Assn.; Hotel Sherman, Chicago, Ill.; sec., Raymond J. Walter, 551 Fifth Ave., New York 17, N.Y.

May 19—Des Moines Feed & Grain Club Field Day; Des Moines Golf & Country Club; chm., Bill Rogerson, 1901 E. Euclid Ave., Des Moines 13, Iowa.

May 21-23—American Feed Manufacturers Assn.; Morrison Hotel, Chicago; sec., W. T. Diamond, 53 W. Jackson Blvd., Chicago 4, Ill.

June 1-3—Indiana Grain & Feed Dealers Assn., mid-summer convention; French Lick-Sheraton Hotel, French Lick, Ind.; exec. sec., Fred K. Sale, 600 Board of Trade Bldg., Indianapolis, Ind.

June 2-3 — Central Retail Feed Assn., Inc.; Hotel Schroeder, Milwaukee, Wis.; sec., Eldon H. Roesler, 1712 W. St. Paul Ave., Milwaukee, Wis.

June 8-10—Eastern Federation of Feed Merchants; Whiteface Inn, Whiteface, N.Y.; exec. dir., Austin W. Carpenter, Box 66, Sherburne, N.Y.

June 9-11—Association of Southern Feed & Fertilizer Control Officials; Heart of Atlanta Motel, Atlanta, Ga.; sec.-treas., Bruce Poundstone, University of Kentucky, Lexington, Ky.

June 10-12 — Alabama Poultry Industry Assn.; Auditorium, Birmingham, Ala.; exec. sec., W. L. Walsh, P.O. Box 567, Montgomery, Ala.

June 10-13—Northeastern Poultry Producers Council Egg Quality School; Rutgers University, New Brunswick, N.J.; chm., Alfred Van Wagenen, 10 Rutgers Place, Trenton 8, N.J.

June 16-18—American Association of Feed Microscopists, Chateau Laurier, Ottawa, Canada; sec., G. M. Barnhart, Missouri Department of Agriculture, Jefferson City, Mo.

June 16-18—Tri-State Hatchery & Field Agents School; Poultry Science Department, Purdue University, Lafayette, Ind.; chm., David D. Jackson, extension poultryman.

June 17-19—Western Poultry Congress; Santa Rosa, Cal.; sec., Willard A. Smith, P.O. Box 307, Baldwin Park, Cal.

June 19-20—Purdue Poultry Service & Salesmen's Clinic; Poultry Science Department, Purdue University, Lafayette, Ind.; chm., David D. Jackson, extension poultryman.

June 26-28 — Delmarva Chicken Festival; Denton, Md.; chm., John Asher, R.F.D. No. 2, Box 35-A, Georgetown, Del.

June 27-30—Canadian Feed Manufacturers Assn.; Murray Bay, Quebec; conv. sec., Rachel Beauchamp, 110 St. Paul Street, East, Montreal, Canada.

June 28-July 1—Georgia Feed Assn.; General Oglethorpe Hotel, Wilmington Island, Savannah, Ga.; sec.-treas., Will L. Kinard, 3240 Peachtree Rd. Bldg., Atlanta 5.

July 8-9—Cornell Poultrymen's Get-Together; Cornell University, Ithaca, N.Y.

July 18-19—Kansas Seed Dealers Assn., Hotel Broadview, Wichita, Kansas; sec., O. E. Case, 609 Wiley Bldg., Hutchinson, Kansas.

July 22-25 — American Poultry & Hatchery Federation; Cleveland Auditorium (Ohio); convention mgr., Ed G. Gray, 521 E. 63rd St., Kansas City 10, Mo.

Aug. 5-6 — Mid-South Soybean & Grain Shippers Assn.; Hotel Peabody, Memphis, Tenn.; sec., Paul C. Hughes, P.O. Box 692, Blytheville, Ark.

Aug. 8-9 — North Carolina Feed Manufacturers Assn.; Grove Park Inn, Asheville, N.C.; sec., A. W. Koon, Box 1664, Spartanburg, S.C.

Aug. 18 — National Soybean Processors Assn.; Hotel Fort Des Moines, Des Moines, Iowa; sec., R. G. Houghtlin, 3818 Board of Trade Bldg., Chicago 4, Ill.

Aug. 19-20 — American Soybean Assn.; Hotel Fort Des Moines, Des Moines, Iowa; sec., George M. Strayer, Hudson, Iowa.

Aug. 22—Purdue Swine Day; Purdue University, Lafayette, Ind.; chm., J. H. Conrad, Animal Husbandry Department.

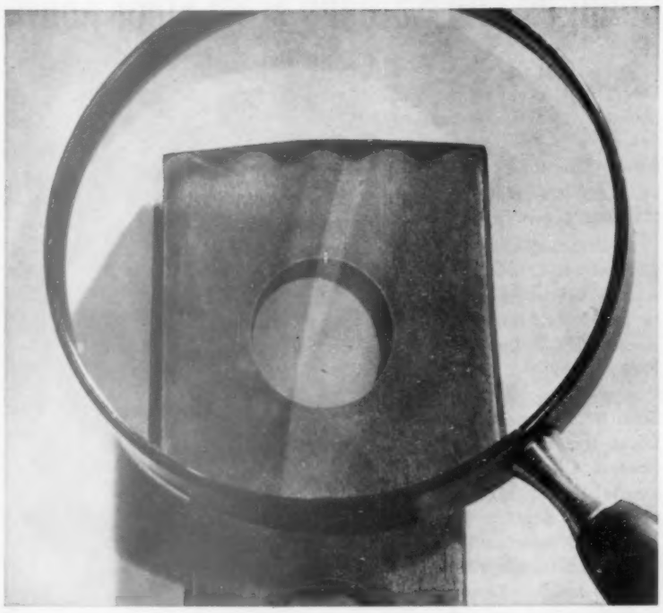
Aug. 25-28—Georgia Poultry Institute; Rock Eagle 4-H Club Center, Eatonton, Ga.; chm., J. H. Massey, Extension Poultryman, University of Georgia, Athens, Ga.

Sept. 7-8—Grain & Feed Dealers National Assn., Sheraton-Jefferson Hotel, St. Louis, Mo.; chm., Alvin E. Oliver, 600 Folger Bldg., Washington 5, D.C.

Sept. 7-9—Louisiana Poultry Improvement Assn.; Jung Hotel, New Orleans, La.; sec., Clyde Ingram, University Station, Baton Rouge, La.

Sept. 10-11 — Maryland Poultry Service Conference; University of

PACAL



New PACAL HAMMER
holds 50% more tungsten-carbide

Cut your grinding costs with new PACAL Hammers. Serrated-Head* design holds 50% more tungsten-carbide than conventional hammers. PACAL Hammers sharpen as they wear, hold their edge, cut cleaner. Last 25% longer than ordinary hard-faced hammers. You get more hours of quality grinding. You save on replacement costs.

There's a PACAL Hammer for your product and your hammermill. Call or write the Hammer Division.

*PATENT APPLIED FOR

PAPER, CALMENSON & CO.
County Road B & Walnut St., St. Paul 13, Minnesota
Telephone: Midway 6-9456

HAMMERS

BANISH
HEMORRHAGIC DISEASE IN POULTRY
DUE TO NUTRITIONAL DEFICIENCY

MAKE YOUR FEEDS MORE EFFICIENT
WITH
HETROGEN K®
Menadione Sodium Bisulfite
The effective water soluble VITAMIN K
• PURE, FREE FLOWING POWDER
• READY TO USE PREMIX
*U.S. Patents 2,231,808 & 2,367,302

WRITE FOR NEW VITAMIN K RESEARCH REPORTS AND HETROGEN K BROCHURE FOR COMPLETE DETAILS

HETEROCHEMICAL CORPORATION
111 E. HAWTHORNE AVENUE
Valley Stream, Long Island, N. Y.
LOcust 1-8225

USE HANDY COUPON:

Dept. FS-510

Please rush complete information on Hetrogen K and latest reports on Vitamin K research.

Firm Name.....
Individual.....
Address.....
.....

Minnesota
Linseed Meal

Manufacturers and dealers everywhere use Minnesota Brand meal, pellets or grits. *Extra protein* sharpens appetites, boosts production. Wire, write or phone for latest quotes.

There's a QUALITY DIFFERENCE

MINNESOTA LINSEED OIL COMPANY
25—44th Ave. N. E. • Minneapolis 21, Minn.
SUNSET 8-9011

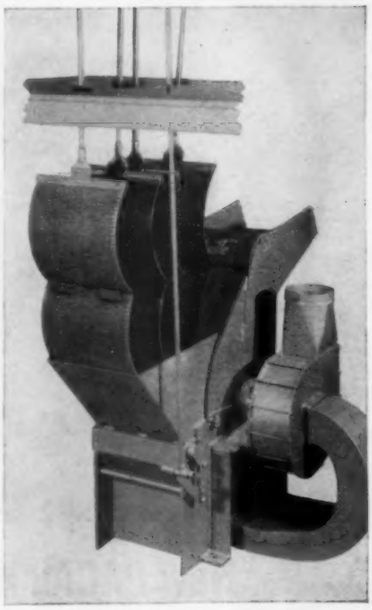
New Schutte Low-Priced Device Changes Mill Screens From Floor Above

Developed to save time and steps, a new, remarkably low priced attachment enables Schutte Hammer Mill screens to be replaced instantly from the floor above.

By means of extension handles, any one of 5 selected screens up to ¼" thick can be inserted or removed while the mill is running. With easy operation made possible by the positive action of the Schutte Patented Eccentric Lock, this new Floor-Above Screen Change feature is available for all standard Series 10 Schutte Hammer Mills. Fool-proof and trouble-free, it can be adapted to any ceiling height. Design prevents leakage around the mill.

From his upstairs station the operator simply uses the extension handles to release the screen lock, lift up the screen to be replaced, lower the new screen into position, and re-lock the entire mechanism. Milling continues uninterrupted.

Schutte manufactures a complete line of hammer mills and accessories, including replacement parts.



REQUEST NEW BULLETIN

For new Bulletin HW 458, and prices, write Schutte Pulverizer Co., Inc., 878 Bailey Avenue, Buffalo 6, N. Y.

CALENDAR FOR 1958-59

MAY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Maryland College Park, Md.; sec., W. H. Rice.

Sept. 10-11 — Maryland Poultry Servicemens Conference; University of Maryland, College Park; chm., W. R. Rice, Poultry Department, University of Maryland.

Sept. 17-19—National Feed Ingredients Assn., Congress Hotel, Chicago, Ill.; sec., Peter W. Janss, 212 Equitable Bldg., Des Moines, Iowa.

Sept. 25-26 — Arkansas Formula Feed Conference; University of Arkansas, Fayetteville, Ark.; chm., Prof. E. L. Stephenson, Department of Animal Industry and Veterinary Science.

Oct. 7-9—Northeastern Poultry Producers Council Poultry Exposition and Convention; Farm Show Bldg., Harrisburg, Pa.; chm., Alfred Van Wagenen, NEPPCO, 10 Rutgers Place, Trenton 8, N.J.

Oct. 8-10—Texas Nutrition Conference; Texas Agricultural and Mechanical College; College Station, Texas; chm., J. R. Couch, Poultry Science Dept.

Oct. 12-14—Kentucky Poultry Improvement Assn., and Kentucky Poultry Federation; Kenlake Hotel, Hardin, Kentucky; sec., John W. Tuttle, 730 Rose Street, Lexington, Ky.

Oct. 14-15—Virginia State Poultry Federation; Natural Bridge Hotel, Natural Bridge, Va.; sec., J. Paul Williams, 615 E. Franklin St., Richemond, Va.

Oct. 14-16 — Association of American Feed Control Officials; Shoreham Hotel, Washington, D.C.; sec., L. E. Bopst, University of Maryland, College Park, Md.

Oct. 16-17 — Oklahoma Formula Feed Conference, Oklahoma State University, Stillwater, Okla.; chm., Dr. Rollin H. Thayer, Poultry Science Dept.

Oct. 20-21—California Animal Industry Conference, Fresno Memorial Auditorium, Fresno, Cal.; sponsored by University of California and California Hay, Grain & Feed Dealers Assn.; sec., John Gilmore, 1400 10th St., Sacramento, Cal.

Oct. 23-24 — Iowa Seed Dealers Assn.; Hotel Fort Des Moines, Des Moines, Iowa; sec., Bob Skinner, 928 Des Moines Bldg., Des Moines, Iowa.

Oct. 23-25—Nutrition Conference, Alabama Feed Assn.; Alabama Polytechnic Institute, Auburn, Ala.; chm., Merlin T. Bryant, Brundidge Milling Co., North Main St., Brundidge, Ala.

Nov. 2-5 — National Renderers Assn., Hotel Statler, Washington, D.C.; sec., Miss Jamie C. Fox, 30 N. La Salle St., Chicago 2, Ill.

Nov. 12-14—Midwest Feed Production School; American Royal Bldg., Kansas City; sponsored by Midwest Feed Manufacturers Assn.; exec. vice president, Lloyd S. Larson, 20 W. 9th St. Bldg., Kansas City 5, Mo.

Nov. 13-14—Cornell Nutrition Conference; Hotel Statler, Buffalo, N.Y.; chm., Prof. Charles Chance, Wing Hall, Cornell University, Ithaca, N.Y.

Nov. 14—Midwest Custom Milling School; American Royal Bldg., Kansas City; sponsored by Midwest Feed Manufacturers Assn., exec. vice president, Lloyd S. Larson, 20 W. 9th St. Bldg., Kansas City 5, Mo.

Nov. 23-25—Western Grain & Feed Assn.; Hotel Fort Des Moines, Des Moines, Iowa; sec., Bob Skinner, 928 Des Moines Bldg., Des Moines, Iowa.

1959

Jan. 26-28 — Southeastern Poultry & Egg Assn., Atlanta, Ga.; sec., Harold E. Ford, 235 E. Ponce de Leon Ave., Decatur, Ga.

Feb. 12-13 — Washington State Feed Assn.; Leopold Hotel, Bellingham; mgr., J. G. Wilson, 814 Second Ave. Bldg., Seattle, Wash.

Feb. 22-24—Colorado Grain, Mill & Feed Dealers Assn.; Shirley Savoy Hotel, Denver, Colo.; sec., R. B. Kelley, 714 Cooper Bldg., Denver 2, Colo.

March 1-3 — Ohio Grain & Feed Dealers Assn., Inc.; Neil House, Columbus, Ohio; sec., G. E. O'Brien, 710 N. Ohio Street, Greenville, Ohio.

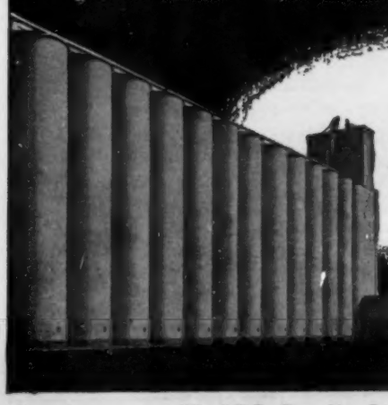
March 11-13—Midwest Feed Manufacturers Assn.; Hotel Shamrock Hilton, Houston, Texas; exec. vice president, Lloyd S. Larson, 20 W. Ninth Street Bldg., Kansas City 5, Mo.

Hoffman

for vitamins

Hoffman-Taff Inc.
SPRINGFIELD, MISSOURI

OUR "FORMULA"... for serving the formula feed mixers



1. A QUALITY PRODUCT — FROM THE CREAM OF THE SOYBEAN CROP
2. SERVICE — FROM OUR MILL TO YOURS .... AS SCHEDULED!

Here's a formula that works.... FOR YOU!

KANSAS PHONE 3000 Soya PRODUCTS CO., INC. EMPORIA, KANSAS

D.F.E. DIRECT FROM EMPORIA

H. C. Fornshell T. E. Kanakis D. W. Hansen P. L. Woljeck

Personnel Changes Made by A. E. Staley

DECATUR, ILL.—Four personnel changes—two promotions and two new appointments—have been made by the A. E. Staley Manufacturing Co., Decatur. The changes were announced by Lloyd A. Winslow, formula feed manager.

Harold C. Fornshell has been appointed as turkey specialist. He joined A. E. Staley last year when the firm acquired Arcady Farms Milling Co., and has been territory manager in northeastern Indiana since then. He has spent 10 years with Arcady as turkey specialist and territory manager, and 12 years with the Indiana Department of Conservation, where he was superintendent of the Wells County Game Farm.

Thomas E. Kanakis has joined the firm as sales supervisor of "Rockland Diets" for laboratory animals.

Mr. Kanakis has been in feed sales work in the southern states for several years. He was division manager with the Western Grain Co., Birmingham, Ala., before joining A. E. Staley, and was with Vitality Mills, Inc., before that.

Donald W. Hansen will be northeast Indiana territory manager. He was with Hubbard Milling Co. as territory representative, sales supervisor and sales manager for nine years before joining A. E. Staley recently.

Paul L. Woljeck has been named terminal elevator section superintendent, succeeding Harold Wilber, retired. Mr. Woljeck was previously assistant superintendent of the terminal elevator section. He joined the company 10 years ago in engineering, became assistant plant maintenance superintendent, assistant wet-starch section superintendent and assistant superintendent of the terminal elevator in 1956.

Steers Gain Best on Bermuda Hay at S.C.

CLEMSON, S.C.—Steers in a feed test at Clemson College ate more coastal Bermuda hay as roughage and gained faster than those receiving cottonseed hulls or oat straw.

The tests were conducted by Dr. R. F. Wheeler, E. G. Godbey and S. G. Woods, department of animal husbandry. In their report the researchers pointed out that the feed cost per day for the steers, which averaged 450 lb., was 21¢ for the Bermuda hay, 18¢ for those on oat straw and 16¢ for those fed cottonseed hulls.

Cottonseed meal, blackstrap molasses and alfalfa meal were used as concentrates in each lot.

"Since the steers receiving cottonseed hulls were purchased for $18 cwt.," the report explained, "it was necessary to sell them for $18.93 cwt. at the close of the feeding test to get a return that equaled the amount of money spent for the cattle and feed."

Bauer Firm Appoints New Technical Director

SPRINGFIELD, OHIO—J. Howard Wright has been appointed to the newly-created position of technical director, food and industrial machinery division, by the Bauer Brothers Co., Springfield.

In this capacity he will conduct research on new and unusual applications of the firm's equipment for size reduction, granulating and fiberizing of various materials, especially for the chemical, food and allied industries. This is the second time he has been associated with Bauer. He was a sales engineer for the company from 1952 to 1957.

NET EARNINGS UP

ST. LOUIS—National Oats Co. reported net earnings of $135,093 for the three months ended March 31, compared with a net of $30,695 for the same period of 1957. Earnings were equal to 82¢ per share on the 165,634 shares outstanding, as against 19¢ on the same number of shares during the 1957 period.

No claims necessary!

"SNOW FLAKE" BRAND OYSTER SHELL SPEAKS FOR ITSELF!

SEND FOR SAMPLES AND SEE PROOF OF ITS HIGHER QUALITY.

Phone OR 2-9441
WRITE WIRE PHONE

MAYO SHELL CORP.
P. O. BOX 784 • HOUSTON, TEXAS

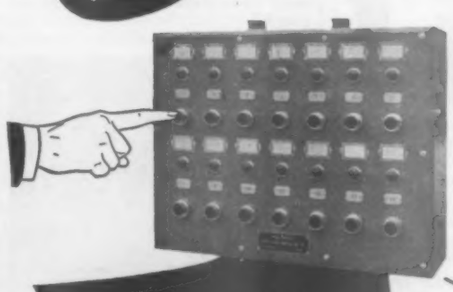
LASSEN PROCESS
FISH SOLUBLES
WITH FISH GLANDULAR AND LIVER HYDROLYSATE ADDED
+ the Plus Factors
GUARANTEED "ALL YEAR" SUPPLY
Producers and Brokers
R. S. WILSON CO.
1206 MAPLE AVE. • LOS ANGELES 15, CALIF.

LA BUDDE
MILWAUKEE, WIS.
MALT SPROUTS
BREWERS GRAINS
DISTILLERS GRAINS
BEET PULP
AND 44 OTHER FEEDS

Gilbert Jackson
BOARD OF TRADE BLDG., KANSAS CITY 5, MO.
EARL GARRATT—BOB KIVETT, ASSOCIATES
COMPANY, INCORPORATED
Phone BA 1-0337
TWX KC-252
All Feed Ingredients
A Nationwide Service from the Heart of America

WISCONSIN ALUMNI RESEARCH FOUNDATION
LABORATORY SERVICES
PRACTICAL
CHICK FEEDING STUDIES IN BATTERIES OR ON LITTER
DETERMINATIONS OF:
•VITAMIN B12 •ANTIBIOTICS
•ARSENICALS
A.O.A.C. vitamin D3 chick assays
U.S.P. vitamin D rat assays — results in 8 days
U.S.P. or A.O.A.C. vitamin A assays
Other vitamin assays
Amino acid assays
Biological protein evaluations
Proximate analyses and mineral determinations
Insecticide Testing and Screening
Other biological, chemical and microbiological services
PROJECT RESEARCH AND CONSULTATION
Write for price schedule
WISCONSIN ALUMNI RESEARCH FOUNDATION
P.O. Box 2059-N • Madison1, Wis.

NOW PUSH BUTTON CONTROL
FOR DISTRIBUTION OF
DRY BULK MATERIALS



Do you ever wonder if your distributor is set on the right bin? The new FOOL-PROOF Hayes & Stolz Electric Distributor removes all doubt by signalling accurately your loading position at all times. Position can be changed only by a numbered push-button on the control panel, assuring positive selection. The new H & S Electric Distributor can be fitted with 5 to 20 openings. The diameter of these openings can be specified in 6", 7", 8" 10" and 12" sizes. Adaptable to mounting on elevator legs, collectors, sifters, mixers, screw conveyors and belt conveyors.

H S Electric Distributor

CAN BE CUSTOM-BUILT IN ALL SIZES TO FIT YOUR PLANT NEEDS

Extra monitor panels are available to allow for check on settings from anywhere in your plant.

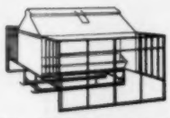
Engineered with care and fully backed by HAYES & STOLZ WARRANTY

Hayes & Stolz INDUSTRIAL MANUFACTURING CO., INC.
3521 HEMPHILL ST. P. O. Box 953 So. Side Sta., Fort Worth, Texas

BROWER CREEP FEEDER FOR *Calves*

CAPITALIZE ON THE TIME-AND-WORK SAVING FEATURES . . . THE INCREASED PROFITS YOUR CUSTOMERS CAN MAKE!

Here's the product that spells p-r-o-f-i-t-s for feed dealers! Farmers are interested in getting heavier, upgraded calves at weaning . . . better price . . . earlier marketing. Brower Calf Creep Feeder keeps cows out — saves feed. Its big capacity saves time and work. Weather tight — keeps feed dry in all weather. Anchors solidly at all 4 corners — stays put. Sturdy angle iron stalls fold to top for easy towing on steel skids. Hopper and trough of heavy, rust-resisting Armco Zincgrip. Shipped knocked down to save freight; easy to assemble.



NOW AVAILABLE IN 2 SIZES! Double stall creep feeder (above) holds 30 bushels, takes care of 40 calves; single stall creep feeder (below) holds 12 bushels, takes care of 20 calves.

- WRITE FOR FREE CATALOG SHOWING OUR COMPLETE LINE OF POULTRY AND LIVESTOCK EQUIPMENT.

BROWER MFG. CO., 591 N. 3rd, Quincy, Ill.

J. H. LEFTWICH & CO., Inc.

BLACKSTRAP MOLASSES

Phone HEmlock 2-8771 Mobile, Ala. P.O. Box 78

Savannah, Ga. Jacksonville, Fla.
New Orleans, La. Corpus Christi, Texas
Tuscaloosa, Ala. Nebraska City, Neb.

Shipments by Rail Tank Car, Truck Transports and Barge

Mister....

IT'S ALL WRONG!

. . . To use just any brand of feed fortification with the idea that "they are all just about the same"!

You owe it to yourself to find out right away what Pratts Hi-Trates can do for your feeds —and your business!

Pratt is free to pick and choose the best ingredients available. That's the reason Hi-Trates supply ALL the vitamins (in stabilized form), anti-biotics and trace minerals you need to fortify your feeds *right!* There's a big savings and profit story, too. Want facts? Write Pratt today!

MAKE Pratts® PROVE IT!

Pratt Laboratories, Inc.
Junction City, Kentucky

SUPPLY STORE DISPLAY—The Feed & Supply Center, Twin Falls, Idaho, stocks a wide variety of farm and ranch needs to meet the varied demands of those who purchase feed from the firm. Impulse buying is high, the firm reports. The company was started about two years ago, and by the end of its first year had feed sales of 2,000 tons a month, and toward the end of its second was up another 25%. The combination sales of feed and supplies has led to plans for further expansions.

Careful Planning Leads to Fast Growth for Idaho Feed Firm

By Jess F. Blair
Feedstuffs Special Writer

About two years ago a new feed company took its place among the old established firms in the Snake River Valley of Idaho. This was the Feed & Supply Center, Inc., of Twin Falls. It was built by Ben R. Ferguson, president and chief stockholder.

Today Ferguson's company is one of the largest in the area. Sales volume jumped past 2,000 tons a month before the end of the first year, and during the latter part of 1957 was up another 25%.

Besides turning out a high volume of feed, Mr. Ferguson had also developed a good business in custom storage of grain, buying and selling wheat and barley and in selling large quantities of farm chemicals, animal health remedies and farm supplies.

The Feed & Service Center was planned well in advance. Mr. Ferguson, a graduate of Colorado State University, had spent many years in animal nutrition before going into business for himself. In building the plant, he knew exactly what he wanted.

The first thing was plenty of equipment. He installed twin vertical mixers, steam rollers, grinders, a large molasses mill and other equipment to turn out a large volume of feed. In addition, the company has storage for 100,000 bu. of grain.

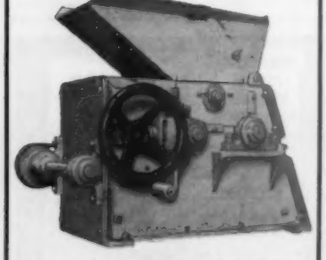
"It was my observation that two things were needed to make a nice profit," Mr. Ferguson said. "We needed a plant that would manufacture a large volume of feed and the customers to use it."

It also required a business goal, a plan of operations. One aim was to utilize all homegrown feeds as much as possible.

"We haven't deviated from that principle," said Mr. Ferguson. "We try to take everything grown at home and then fortify it. I never recom-

NEW LABORATORY—Shown in the new laboratory at the Feed & Supply Center, Twin Falls, Idaho, is Ben Ferguson, Jr., who will take over the laboratory after graduation from Colorado State University veterinary school. The firm plans to push poultry in the area, and will use the lab to help in this program as well as to help improve other formulas.

W-W GRAIN ROLLER MILL



Built for PERFORMANCE Quality and Long Life!

You can tell at first glance that the W-W Roller Mill is the best ever made! It has simplified control wheels—instead of levers—for easy operation. Framework is made of heavy cast iron—instead of boiler plate so it is corrosion resistant. "Mill-type" 10" diameter rolls outwear any other kind. But best of all, it will crimp, crack or crumble every kernel fed through it. Yes, it's the roller miller that will make you more money. Available in multiple widths from 6" to 36". Better write for literature, prices and name of dealer today! Time payment plan available.

W-W GRINDER CORP.
Dept. 311
2957 No. Market Wichita 4, Kansas

SETS COURSE—Ben R. Ferguson, owner of the relatively young Feed & Supply Center, Twin Falls, Idaho, plotted a careful course for his firm to follow before he established it two years ago. He planned equipment needs, volume anticipated, promotions, labor needs and goals and then set out to meet them. The firm is already one of the largest in the area and it's still growing.

mend to a farmer that he sell all his feed and buy it back from us. Instead, we figure what he can use at home, such as barley, alfalfa or sugar beet pulp. We take this and build it into a high-energy ration."

The company says that high-energy feeds are very effective during the cold months. For this reason, most of the pellets and granules manufactured by the mill contain molasses.

In analyzing feed sales, Mr. Ferguson found that feedlot cattle ranked first. Others, in order of sales volume, were range cattle, dairy cattle, sheep, both range and feedlot, hogs and poultry.

Many of the feedlot operators became customers because of feeding tests conducted by the feed company. Mr. Ferguson worked very closely with a few cattle owners in test feeding. One co-partner, John Breckenridge of Twin Falls, got good gains and the story received wide publicity.

Mr. Ferguson has also been cooperating with the University of Nevada on feeding tests of range cattle. At the university station just south of the Idaho-Nevada line, all the feed was made by the Feed & Supply Center. One type that is proving satisfactory is a grass pellet fortified with protein and sugar.

"These tests alone are not so profitable," said Mr. Ferguson, "but the word was spread around and we've gained a dozen new customers from them—customers who feed large numbers of cattle. And just a few of these fellows can increase your tonnage a great deal."

Another bit of promotion has become a good profit-maker for the firm. Mr. Ferguson worked with state officials who raise pheasants and rainbow trout for re-stocking purposes, and got the franchise to make their feed. Now he furnishes a special feed for 20,000 pheasants and for the rainbow trout. In addition, he sells a sizeable quantity of fish feed to the state of California.

"This has proved that to build a large volume of business, you must have the equipment to turn out a fast and meticulous job," said Mr. Ferguson.

Business Grew Rapidly

By owning the proper equipment and promoting the business, Mr. Ferguson accomplished his first two aims in less than two years. His 100-ton-a-day machinery is busy most of the time.

There was still another problem, however, and that was to do the job as cheaply as possible. Some men with expensive equipment and high sales still end the year with little or no profit, Mr. Ferguson pointed out.

To reduce expenses to a minimum, Mr. Ferguson and his assistant manager, Ira McClimans, have made several cost surveys of the plant. They found that when they were manufacturing 500 tons a month the overhead was $8.50 ton. But when volume reached 2,000 tons, the cost was only $4.52 ton. This accounted for all labor, maintenance and other overhead.

Going still further, they worked out ways where each employee could do more in the same number of hours. Also, close management of seasonal labor could save money in salaries. A careful routing of delivery trucks was still another way of saving a few dollars each week.

Employee Program

"To get the highest efficiency in a plant's operation, you must have good employees," said Mr. Ferguson. "Some of the laborers are not so carefully chosen, but the key mill and office men are the best I could find. I can't supervise everything, so several of the boys are capable of holding farmer meetings, working out rations and checking field problems."

To keep employees satisfied, the store has worked out a profit-sharing plan, and it also carries its own insurance plan. This has kept the labor turnover down almost to the zero point.

Part of the increase in business can be attributed to a well-planned advertising campaign. Mr. Ferguson finds newspaper ads the most effective. However, these are not just ordinary advertisements. Each week he takes a quarter-page from the local daily paper and writes the contents himself. Each ad features a customer, showing a picture of him and his livestock. It contains a story of what animals were fed, the kind and amount of feed, and results.

The next week he may show a turkey grower, a dairy owner or maybe a farmer just getting started in some phase of livestock production.

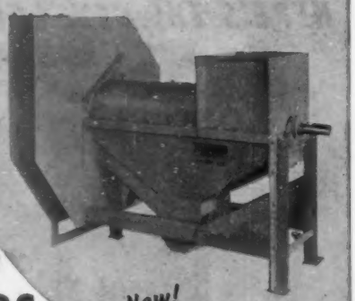
Once each year the company holds a big jamboree, complete with a pro-

FISH SOLUBLES
Dried, 100% Pure, Made of
South African
PILCHARDS
•
PROMPT & DEFERRED SHIPMENTS
Imported Full Meal
(FISH MEAL WITH SOLUBLES)
Sardine Meal
Anchovy Meal
Herring Meal
Fish Scraps
•
UNEXTRACTED ANIMAL LIVER & GLANDULAR MEAL
•
COD LIVER MEAL
•
STEAMED BONE MEAL
•
DICALCIUM PHOSPHATE
•
Vitamin "A" Fish Liver Oils
•
ALBUMINA
SUPPLY CO., Inc.
82 Beaver Street
NEW YORK 5, N.Y.
Phone HAnover 2-4174

EXPELLER
SOYBEAN OIL MEAL
AND PEASIZE CAKE
43% PROTEIN — 4% FAT
The High - Fat, High - Protein, High - Energy Basic Ingredient for All Feeds and
DOG FOOD RATIONS
PREFERRED by Feed Manufacturers from Coast to Coast
AVAILABLE in carloads and trucklots throughout the year from our centrally located plant
ILLINOIS SOY PRODUCTS COMPANY
SOYBEAN PROCESSORS
P. O. Box 53 SPRINGFIELD, ILLINOIS Phone 23391

CALL Babe or Bob Stuart for
★ MILL FEEDS ★ LINSEED MEAL ★ SOYMEAL
★ ALFALFA MEAL ★ SCREENINGS
RELIANCE FEED CO. FOR 31 YEARS Phone FE 2-2418 216 Phoenix Bldg. Minneapolis, Minn.

BUY and SELL through WANT ADS

Want Faster Corn Shelling and Lower Cost Operation?
Specify
TRIUMPH
Zip
COB BLOWING CORN SHELLERS

New! Triumph No. 500 CORN SHELLER
More Universally used by Feed Mills than any other make Sheller.
TRIUMPH ZIP Cob Blowing Corn Shellers are modern machines developed to simplify the shelling and cleaning of corn, and the handling of cobs, for Feed Mills. With TRIUMPH, faster shelling rates are possible, with less first cost and lower operating costs.
Although simple in design, they contain many exclusive features developed by TRIUMPH engineers. TRIUMPH Zip Cob Blowing Corn Shellers are easy to apply and to operate . . . but capable of handling any condition of ear corn brought to Feed Mills, efficiently and fast. Maintenance, breakdown, and chokings are reduced to a minimum assuring lowest cost operation.
Thousands of TRIUMPH Zip Cob Blowing Corn Shellers are in use in Feed Mills everywhere. Their popularity is soundly based on proven performance and results.
TRIUMPH Engineers and Distributors offer years of experience in handling ear corn and designing corn shelling systems . . . a plus value gained only through buying TRIUMPH.
No. 100
Ideal for Smaller Feed Mills Simple, Dependable, Efficient 6 to 8 tons per hour.*
No. 150
Designed for use on Mobile Feed Mills or other portable uses 6 to 8 tons per hour.*
No. 300
Fast Shelling for Larger Mills at low first cost 13 to 18 tons per hour.*
No. 500
New Rugged Sheller for Heavy Shelling Requirements 18 to 22 tons per hour.*
*Shelling rate based on tons per hour of machine picked ear corn.
TRIUMPH
CORN SHELLERS
THE C. O. BARTLETT & SNOW CO.
6249 HARVARD AVENUE • CLEVELAND 5, OHIO

GET FULL DETAILS. Write for the catalog today.

PILOT BRAND OYSTER SHELL FOR POULTRY

CONSISTENT ADVERTISING

HELPS PULL SALES YOUR WAY

PILOT BRAND is, by far, the most widely advertised eggshell material. PILOT BRAND advertisements appear regularly in leading farm and poultry journals read by thousands of poultry raisers everywhere. In addition, the PILOT BRAND story is regularly being told on more than 70 prominent radio stations.

It is because of this consistent advertising of a tried and proved product, plus the splendid efforts of the many feed dealers who regularly stock and promote PILOT BRAND, that PILOT BRAND Oyster Shell is the largest selling eggshell material in the world. It pays to back a winner.

Order from your distributor or write to us

Oyster Shell Products Corporation
Mobile, Alabama

HERE'S THE NEW LONGHORN HORIZONTAL PELLET COOLER!

It's The Solution to Your Pellet Cooling Problems!

You'll get top production at competitive prices because of sound engineering based on years of actual testing in feed mills across the nation.

The Longhorn gives terrific results on all types of pellets . . . range, bunk and poultry.

CHECK THESE FEATURES:

- Self cleaning . . . Defeats Contamination.
- No clog wire belt . . . equally effective on "sweet" pellets and hard feeds, equipped with automatic belt cleaner.
- Three basic models to suit any production quota, without "stacking" or "superimposing." Each model is a machine within itself.
- Uniform air flow without tedious adjustable louvres and dead spots in your cooler.
- Horizontal construction eliminates clogging and saves on cost of conveyors in many installations.

Let Longhorn Engineering Co. tell you about this newest creation in Feed Mill Modernization. Also get acquainted with Longhorn's line of "Scroll" type collecting systems, Air Locks, Magnetic Separators and other feed mill equipment. Satisfaction guaranteed not only in the product . . . but in our service to you . . . our customers.

Call, wire or write Longhorn Engineering Co.

Longhorn Engineering Co.

Postoffice Box 4176 **Phone MArket 6-8283**

FORT WORTH **TEXAS**

fessional western swing band, free drinks and prizes. Each employee is at his post of duty to show visitors through the plant and answer questions.

To Add Laboratory

Mr. Ferguson has several plans for the future. The most immediate is a laboratory inside the store. Two rooms have already been equipped with modern instruments, and it will get into operation when Ben Ferguson, Jr., graduates in veterinary medicine from Colorado State University. Young Ben will be in complete charge of all laboratory work.

"We hope to analyze feeds grown locally," Mr. Ferguson said. "There is some variance in nutrition value, and this knowledge will help us develop better formulas.

"Also, we intend to push poultry in this area, and the lab will be a big help. We can analyze feed, do post mortems, work on diseases and vaccines. And finally, we think it will take the guesswork out of several things we are doing now."

Tennessee Reports on Pepsin Supplements In Rations for Chicks

KNOXVILLE, TENN. — While supplementing the ration with pepsin may help baby pigs grow faster, pepsin does not speed gains of broiler-type baby chicks, University of Tennessee poultry researchers report.

The Tennessee Agricultural Experiment Station scientists added from .06 to 1% of the enzyme pepsin to each of 10 chick starting rations that differed in protein source. Each ration was calculated to contain 21% protein.

Five rations contained soybean oil meal while five others depended upon hydrolyzed feather meal as the main source of protein, explains Dr. O. E. Goff, head of the University of Tennessee poultry department. Chicks used in these tests were crossbred, broiler-type baby chicks grown to four weeks of age.

The results: "Adding pepsin, at any of the five levels fed, failed to increase growth or improve feed efficiency of four-week-old chicks. Including pepsin in rations utilizing either soybean oil meal or hydrolyzed feather meal as the main source of protein in the basal diet failed to improve the growth rate or feed effciency of these chicks," Dr. Goff says.

Tests by other workers have shown that pepsin—an enzyme that helps baby pigs and other larger animals to break down protein so that it is more easily digested—did not benefit baby chicks when it was added to their diets. These recent tests were the first in which soybean oil meal and hydrolyzed poultry feather meal, an 87% protein product, were compared in a pepsin experiment.

"These tests prove that the baby chick has a well-developed proteolytic enzymatic system, since feeding pepsin to these baby chicks failed to improve the growth rate or feed efficiency of these chicks," Dr. Goff concludes.

Morea Plant Built In Puerto Rico

CRETE NEB.—A plant to manufacture Morea liquid feed for ruminant animals is now operating at Mercedita, Puerto Rico, according to Philip C. Anderson, president of Feed Service Corp., Crete, Neb. Mr. Anderson recently returned from a business trip to Puerto Rico and Martinique.

The liquid supplement soon will be manufactured and sold in Italy, Denmark and other European countries. Patents have been granted in most countries of Europe, Africa, South America and in the South Pacific area.

In the U.S., Morea feed supplements for beef cattle, sheep and dairy animals are being manufactured and distributed in the Midwest by Feed Service Corp. The company has given U.S. Industrial Chemicals Co., division of National Distillers and Chemical Corp., an exclusive license to manufacture and distribute the supplements throughout the rest of the country.

F. R. Smedley, Jr.

SALES REPRESENTATIVE—Francis R. Smedley, Jr., has been appointed sales representative to serve the Midwest customers of Dura-Buket division of the National Oats Co., East St. Louis, Ill. His headquarters will be in Cincinnati. He will cover a territory east of the Mississippi River and west of a line from Buffalo, N.Y., to Miami, Fla. Mr. Smedley has been doing sales work in bucket elevator operations since 1952. He is a graduate of Oklahoma State University.

Planning a new mill or elevator? KELLY DUPLEX can help you.

Maybe you've been thinking about a new mill—a new addition—or a new machine. Then again, maybe you've just been wondering how you can get MORE from your present space.

Whatever it is, we would like to talk to you about it.

We've shown a lot of others how good machinery and good planning can do wonders for their capacity, their efficiency, and their profits—at COMMON SENSE COST. The chances are we can do the same for you.

Don't hesitate to send us the coupon. There will be NO obligation—and NO high pressure salesmanship. We don't do business that way.

The Duplex Mill & Mfg. Co., Springfield, Ohio
We would like to talk to you about planning.
We're interested in_____
NAME_____
FIRM_____
ADDRESS_____

Costs, Receipts Calculated for Laying Flocks

AMHERST, MASS.—Egg producers often ask how many layers they should keep, says Prof. John W. Hough, poultry husbandry department, University of Massachusetts.

To shed light on the question, he made some cost-and-receipt calculations and reported them in Featheredfax, publication of the university's poultry husbandry department.

His budget, consisting of the estimated costs and receipts for a flock of brown egg producers, is as follows:

Expenses

Three lots of day-old pullets—3,200 at 40c each	$ 1,280
Fuel and litter, 3,200 checks at 4c each	128
Feed for rearing pullets to 24 weeks with allowance for 6% mortality and culling, 25 lb. per pullet started. 3,200 x 25 lb. x 4.3c	3,440
Feed for layers with an allowance for 20% mortality and culling, 85 lb. per pullet housed. 2,800 x 85 lb. x 4.3c	10,240
Water, electricity, litter, vaccines, repairs and misc.	1,000
Total cash costs	$16,088
Overhead costs (taxes, repairs, building depreciation, equipment depreciation and interest on investment and debts)	2,250
Total costs	$18,338

Receipts

250 culls at 70c each	$ 175
Eggs sold: 16 doz. per pullet housed at 40c doz.	17,920
Fowl sold: 2,240 birds at 70c each	1,568
Total receipts	$19,663
Net labor returns	1,325

Prof. Hough included further calculations to show the effects of increasing egg prices. (The table below shows that when all costs remain the same and the average price received for eggs goes up 1¢, the poultry man makes approximately $450 more.)

Effect of Egg Price on Net Labor Return

Egg price per doz.	Total receipts	Net labor return
40c	$19,663	$1,325
41c	20,111	1,773
42c	20,559	2,221
44c	21,455	3,117
46c	22,351	4,013
48c	23,247	4,909
50c	24,143	5,805

Because the most important cost item is feed, which makes up about 60% of the cash expenses, the poultry researcher estimated the effects feed price changes have on labor income.

Effect of Laying Mash Price on Net Labor Return

Feed price per 100 lb.	Total cost	Net labor return
4.00	$17,618	$2,045
4.05	17,737	1,926
4.10	17,856	1,807
4.20	18,094	1,569
4.30	18,332	1,331
4.50	18,808	855

Prof. Hough points out that for each 5¢ increase or decrease per 100 lb. of feed, the net labor return increases or decreases $119 for the producer.

"One other item that can easily make the difference between profit and loss is the amount of eggs produced. The poultry man who gets 240 eggs per bird spent only a few more cents for feed for those extra eggs," he explained. "The following table shows what a difference egg production can make."

Effect of Rate of Egg Production on Net Labor Return

Eggs per pullet housed	Feed per layer	Total costs	Total receipts	Net labor return
150	80	$17,730	$15,743	—$1,987
170	84	18,211	17,423	— 788
192	85	18,338	19,663	1,325
204	85.5	18,392	20,783	2,391

"An increase from 170 eggs per bird to 204 means more than $3,000 additional income. Many poultry men finish a flock year with production averages well over 230 eggs per bird," Prof. Hough said.

He stated that 2,800 layers can make a living for a producer if prices are favorable, but that "this size flock is getting too near the break-even point to look at the future with real optimism."

JONES-HETTELSATER CONSTRUCTION COMPANY

1911 Baltimore — BA 1-3930

Kansas City 8, Mo.

DESIGNERS AND BUILDERS of Many of the Country's Outstanding Feed Plants and Grain Elevators

NOPCO'S NEW MIDWEST PLANT NOW AT YOUR SERVICE!

To meet the ever-increasing demand for Nopco's line of poultry and livestock feed supplements, and particularly our NOPCO-PAK® custom-blended vitamin mixes, we are proud to announce new production facilities at Peoria, Illinois.

NOPCO'S NEW PEORIA PLANT:

- Was designed and engineered completely by Nopco, with know-how developed through years of experience as one of the leading premix manufacturers
- Has been equipped by Nopco with the most modern manufacturing equipment
- Is staffed and supervised by experienced Nopco personnel
- Will employ all the basic materials produced by Nopco
- Is ready to serve you . . . right now

NOPCO CHEMICAL COMPANY

Harrison, N.J. • Richmond, Calif. • Peoria, Ill. • Cedartown, Ga. • Chicago, Ill.

NOPCO

Producers of Micratized® Vitamins A and D, niacin, calcium pantothenate, choline chloride, Nopco-Paks, and other products

ELAM GRAIN COMPANY

Complete line of grains and soft feeds

Processors and handlers of brewer's grains

St. Louis elevator . . . 2,500,000 bushels capacity

Call St. Louis OLive 2-5550

Turkey Federation Answers Questions About Enabling Act

MT. MORRIS, ILL.—The National Turkey Federation has drawn up a list of questions and answers designed to avoid misunderstandings and misconceptions about the proposed federal Enabling Act for the turkey industry.

The bill was developed by the federation after several years of studying the problems of the turkey industry. The questions and answers follow.

Q. What is the proposed Enabling Act?

A. It is a proposed bill which, if introduced into and passed by both houses of Congress, and signed by the President, would be enacted into a law that would enable turkey people to develop and vote on a "marketing order" designed to give stability to their industry.

Q. Why does the turkey industry need an Enabling Act?

A. It is an attempt to give direction to a far-flung, loosely-organized industry wherein producers are unable to act for their best interests in a business-like and organized manner. Basically, the proposed act sets up an opportunity to organize a board of directors with the right to collect money equitably from producers and expend it to improve the turkey business.

Q. Would this Enabling Act, as such, put any restrictions on the turkey industry or put any programs into action?

A. No. The Enabling Act would place no restrictions on the turkey industry and, in itself, would put nothing into action. The Enabling Act would merely provide the machinery whereby turkey people would have an organized and government-approved means of voting on programs they (turkey people) might want to put into action. The Enabling Act simply provides the means whereby turkey people could initiate marketing orders which would, after hearing and approval by the secretary, and if voted upon favorably by a sufficient majority, put the program into action.

Q. Under the provisions of the Enabling Act, could the turkey industry vote upon a marketing order to provide for turkey price fixing?

A. No price fixing would be possible.

Q. Under the provisions of the Enabling Act, would it be possible for the members of the turkey industry to vote for turkey production controls with quota allotments governing the number of turkeys that could be raised by each grower?

A. No. Production control of this type is not possible under the provisions of the proposed Enabling Act.

Q. Why was the proposed Enabling Act written without provisions for production controls by means of allotments for individual growers?

A. A large majority of the members of the board of directors of the NTF was opposed to including provisions for this type of production controls in the proposed Enabling Act.

Q. Why do so many members of the board of directors of NTF oppose production controls by allotments to individual growers?

A. There are a number of reasons. Most of these directors indicate they are opposed to controls by allotments because they wish to retain freedom of enterprise in the turkey business. It is felt that a quota system would be so complicated and costly that successful administration would be very unlikely.

Q. Would the Enabling Act provide for controls by allotments of the number of breeders, eggs or poults that could be produced by individual members of the turkey industry?

A. No controls by allotments would be possible under the provisions of the Enabling Act proposed by the NTF.

Q. Since the Enabling Act would not provide for production controls by allotments to producers, how could the program bring about stabilization in the turkey industry?

A. It is the objective of the industry leaders who proposed this program to provide for a method of raising funds, on an equitable basis, from all turkey people, to be used in various ways to bring about as much stabilization as possible.

Just what methods would be used for stabilization would depend on the terms of the marketing order voted on by producers and on the judgment of the governing body of elected turkey producers who would be responsible for administering the program. For example, if the number of breeder turkeys, hatching eggs, poults or market turkeys appeared in excess of the market needs, purchase might be made to bring the supply more nearly in line.

Since the purchase of breeder hens in the early part of the season would appear to be the most effective means, this possible method of stabilization has been most widely discussed. It is emphasized, however, that this is only one possible method of stabilization that has been discussed and there are many others.

Another widely discussed possibility is that in seasons of unfavorable prices, provisions could be made for purchase and pooling of market turkeys to be held for marketing when prices might become more favorable.

Q. If the Enabling Act should be passed and marketing orders voted into action that eventually would make it possible for the governing body to arrange for the purchase of turkeys, what disposal would be made of such turkeys purchased?

A. There would be any number of possibilities. They could be held for a favorable time and put back on the market; canned for disposal when and if a favorable situation developed; sold into some channels whereby they would not be in the usual channels of the turkey market; exported to foreign markets; given or sold to the government for use in the federal school lunch program or other programs, etc.

Q. What methods of fund raising are embodied in the Enabling Act, which might be put into action by a marketing order?

A. Provisions are for raising funds

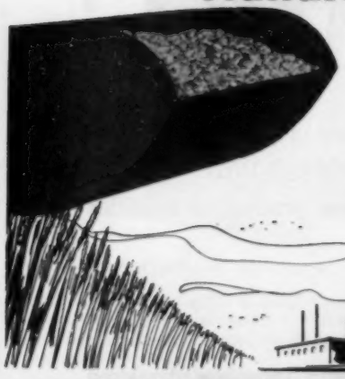
Omar L. Patton

SALES TRAINING—Omar L. Patton has been appointed assistant manager of sales training, Agricultural Division, American Cyanamid Co., New York, according to B. F. Bowman, divisional director of marketing. He will assist E. F. Loats, manager of sales training. Mr. Patton was formerly a district sales manager located in Ft. Wayne, Ind., and is a member of the Star Salesman Club.

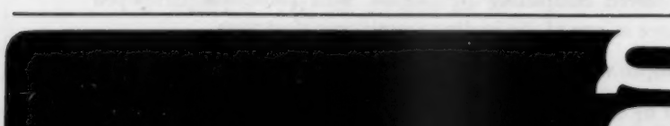
Pittsburgh Plate Glass Co.
34% LINSEED MEAL
MEAL SALES—424 Flour Exchange Bldg., Minneapolis 15
Telephone FEderal 8-8469
PLANT AT RED WING, MINNESOTA

KEES & COMPANY
Processors of DRIED FISH SOLUBLE PRODUCTS
A "MUST" IN EVERY SWINE OR POULTRY RATION
Call or write for complete information and price
327 S. La Salle St., Chicago 4, Ill. Phone HArrison 7-1528

CALUMET CUPS
--Handle More Grain



Design gives a natural flow of grain and a complete discharge is definitely assured at high speed. Order through your jobber or direct to B. I. Weller Company, 327 South La Salle Street, Chicago, Illinois.



COLUMBIA QUARRY

FREE BROCHURE
on Columbia Quarry's original Dust-Free, Easy-Mixing, Free-Flowing Calcium Products. Send now for complete information . . . Write
COLUMBIA QUARRY CO.
1007 Washington Avenue
St. Louis 1, Missouri

DOUBLE YOUR TONNAGE and
TRIPLE YOUR PROFITS!

HONEGGER LEGHORNS
A natural profit-maker with plenty of follow-up poultry feed sales. An exclusive with HONEGGER DEALERS.

BIG "H" FEEDS
Are tested and proved at Honeggers' 600 Acre Practical Test Farm. The superior results of Big "H" Feeds mean repeat orders and repeat profits.

FARM BUILDINGS
Honeggers' complete line of competitively priced, pre-built farm buildings are an extra "exclusive" profit plus for Honegger Dealers.

EQUIPMENT
Honegger Dealers can have equipment shipped prepaid with their cars of feed. Honeggers' full line of modern labor-saving equipment makes an excellent "door opener" for extra feed sales.

For Full Details Write or Phone Collect TODAY!

HONEGGERS'
FAIRBURY, ILLINOIS

from any one or all of three or possibly four sources. It is proposed that a given amount might be collected per breeder turkey, per hatching egg, per poult or per market turkey.

Q. Would the U.S. government have any control over the type of marketing orders developed and their administration?

A. Yes. The secretary of agriculture would have what might be called "veto power." All government programs of this general type contain clauses providing such power whenever a proposal "is not in the public interest." The secretary could "veto" a proposed marketing order or the plan for administering it.

Q. Would the government take an active part in administering marketing orders that are acceptable to the secretary of agriculture?

A. Many details of administration would have to be worked out according to the provisions of both the original Enabling Act and marketing orders that might be put into effect. However, it is the general plan that administration would largely be in the hands of a grower-elected board, and that the government would have only veto power and power to take action in the case of violations of the provisions of the Enabling Act and subsequent marketing orders.

Q. Could the board of directors of the NTF be made the governing board for this program?

A. No. It is probable, however, that many NTF leaders might be nominated for this governing board by turkey people in the area where they reside.

Q. Could the NTF and its affiliated state turkey organizations be designated as the administrative body for certain phases of the program?

A. It is anticipated this might be the case. However, this would be determined by the provisions of the marketing orders.

Q. How would the governing body be selected?

A. In its present form, the Enabling Act contemplates that producers would vote on the persons they wished to nominate to serve on this board. The secretary of agriculture would select the board from these nominations.

Q. Would allied industries such as feed manufacturers and distributors, turkey slaughterers and processors, and distributors of turkey products be represented on this governing body?

A. The provisions of the Enabling Act are, in effect, that only turkey producers have an active vote in making decisions. The Act also provides that allied industry representatives may serve on the board in an advisory capacity.

Q. If the Enabling Act is passed, how would the marketing order be initiated?

A. A representative group of leading turkey producers, probably under the leadership of the NTF, would prepare a proposal for marketing order and submit it for the consideration of the secretary of agriculture. If the secretary considers the proposed marketing order to be within the provisions of the Enabling Act, and if it is in harmony with the policy of being "in the best interests of the public," he would schedule hearings on the proposal. If everything proves satisfactory, he will arrange to submit the marketing order for a referendum of turkey producers.

Q. How and where would this referendum be conducted?

A. This, of course, would be determined by the secretary of agriculture. It is contemplated that this voting would be done at county level,

PUT GUARANTEED POTENCY RESULTS INTO YOUR OWN FEEDS AT LOW COST!

• YOU'LL INCREASE YOUR FEED SALES! • GET MORE REPEAT BUSINESS!
• GAIN HUNDREDS OF SATISFIED CUSTOMERS!

Feed Manufacturers everywhere are cashing in now on the HIGH POTENCY VITAMIN FORTIFICATION trend in feeds. They know that with JERSEE VITAL-MIN they have a fine PRE-MIX that has never failed to give results of guaranteed potency.

JERSEE VITAL-MIN

A TOP QUALITY MULTI-VITAMIN PRE-MIX

Contains the necessary Vitamins, Antibiotics, Amino Acids, and Trace Minerals. Now you can Vitamin Fortify your own feeds with guaranteed potency for just a few cents a bag. JERSEE VITAL-MIN makes your feeds better, brings you more new business, repeat orders and a host of satisfied customers.

WRITE TODAY FOR DEALER'S SALES HELPS

Jersee jobbers and warehouses from coast to coast are eager to help you stabilize your feeds with Jersee Vital-Min.

JERSEEize TO MAKE PROFITS RISE!

JERSEE VITAL-MIN a Pre-Mix VITAMINS MINERALS

THE JERSEE Co. MINNEAPOLIS MINNESOTA

IT'S NO ACCIDENT that this ____Pellet Makes Profits!

because it's made by CPM —your assurance of top uniformity, quality, capacity —at lowest cost per ton!

Biggest Producer: The CALIFORNIA 100 hp "Century"—the quality mill that produces any pellet size and shape—at lowest cost per ton!

Everything you need in a pellet mill for *profitable* operations, you'll find in *California* Pellet Mills—and *only* in CPM.

The clear-cut evidences of CPM leadership in this highly specialized field are unmistakable: this is the pellet mill that first made pelleting profitable, some quarter of a century ago. The priceless engineering skills and ingenuity developed during this period were never more pronounced than in the CPM Pellet Mill you can buy today.

So where *your* future profits are at stake, play it safe: specify the finest. Install a CPM. Get complete details today, and you'll see why it's no accident that "More California Pellet Mills are sold today than all other makes combined!"

CPM CALIFORNIA PELLET MILLS

California Pellet Mill Company
1800 Folsom St., San Francisco 3, California
1114 E. Wabash Ave., Crawfordsville, Indiana
101 E. 15th Ave., North Kansas City 16, Missouri

Sales & Service Representatives also in: Albany • Atlanta • Columbus Davenport • Denver • Fort Worth • Los Angeles • Minneapolis Oklahoma City • Omaha • Richmond • Seattle • St. Louis

ONLY CPM MAKES A COMPLETE LINE OF PELLET MILLS

LABORATORY MODEL "CENTURY" MIXER-PELLETER "HYFLO" "MASTER" "HI-MOLASSES" "MASTER" PLANT

MOST POWERFUL ANTIOXIDANT

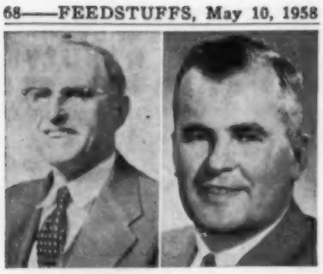
Griffith's G-12

FOR LOW-COST STABILITY OF FATS

Mill or Elevator design and construction. Milling Plants, Storage, Grain Elevators, Warehouses.

Frame or Fireproof Construction

Hogenson CONSTRUCTION CO.
722 Flour Exchange - Minneapolis 15, Minn.



Arden M. Ellis Jackson Kruse

APPOINTED — Red Comb Pioneer Mills, Inc., Chicago, announces the appointment of Jackson Kruse as sales representative in southern New Jersey, to succeed Arden Ellis, Vineland, N.J., who is retiring after 17 years service. Before joining Red Comb, Mr. Kruse was sales representative for Verity Mills, Inc., Buffalo, N.Y. He also owned and operated a poultry farm in New York. Mr. Ellis joined the firm as a sales representative in New Jersey in 1941. He will continue to live in Vineland.

in the same general manner as voting on other farm programs.

Q. Who would be eligible to vote on the referendum?

A. It would depend somewhat on the terms of the marketing order upon which the voting is to be done. Producers of 50 or more breeder turkeys, 500 or more hatching eggs or 250 or more market turkeys are specified by the Enabling Act as being eligible to vote.

Q. Who would be responsible for administering the funds provided by this program?

A. The appointed governing board of turkey producers, as previously described.

Q. Could this governing board delegate the responsibility for administration of some of the funds to another agency—the NTF for example?

A. The Enabling Act as presently drafted would permit the board to enter into agreements with trade organizations serving the turkey industry to carry out activities provided for in a marketing order.

Q. Does the Enabling Act have "teeth in it" to enforce compliance?

A. Yes. The Enabling Act provides for enforcement. Penalty for each separate violation may not exceed $1,000. Action to prosecute violation would be in civil court, not criminal.

Q. Does the Enabling Act give an individual producer any right to question any marketing order to which he may be subject?

A. Yes. The Enabling Act provides that any person subject to an order is entitled to request a hearing to determine whether the order is in accordance with law.

Q. Is it planned that all funds raised by the program would be used for purchase of breeder turkeys, eggs, poults or market turkeys as a means of stabilization of production, or will some of the funds raised be used to promote greater turkey consumption?

A. Promotion of greater turkey consumption is one of the objectives of the program. Just how much would be done along this line would be determined by the governing board and the secretary of agriculture. Turkey industry leaders believe that a program to increase consumption of turkey is very important from the standpoint of bringing about greater stabilization.

However, it is a recognized fact that, with modern methods, production may be increased at certain times to such an extent that the crop is greater than the market readily can absorb, with resulting unprofitable prices to producers. It is the hope of the leaders who sponsored the Enabling Act that a greater degree of stabilization could result through a very carefully instituted program of taking off surpluses of breeder hens, eggs, poults or market turkeys.

Q. Is the objective of the program to make turkey production profitable for everyone in the business?

A. No. The majority of the leaders in the industry who planned the program would like to keep free enterprise in the turkey industry, yet have a means of bringing about a degree of stability that would prevent fluctuations of over-production with unprofitable prices for everyone. It is not intended as a program to keep marginal producers in business in competition with more efficient producers.

Q. Have any definite plans been made for the amount of money that would be collected under this program per breeder turkey, egg, poult or market turkey?

A. No. This would be specified in the marketing order. At least a minimum-to-maximum range of amounts would be specified in the order. The amount that would be collected per unit could be very little, yet a large total amount realized. For example, only 2¢ per market turkey, based on 1957 production, would bring in more than 1½ million dollars; 5¢ per market turkey in 1957, around 4 million, and 50¢ per breeder hen in 1957, around 2 million.

Q. Is there a possibility these fees could be set high enough that this, in itself, might be a limiting factor in turkey production?

A. While in theory this might be possible, in actual practice it would be very improbable, if not impossible. It must be kept in mind that, before any program could be put into effect, it must pass some tough hurdles.

Before a marketing order could be submitted to producers for a referendum, it would require the approval of the secretary of agriculture. Next, it would be submitted to turkey producers for a vote. It would appear that producers would vote against any unreasonable proposal. The fees might serve as a deterrent or a discouraging factor, but never as a control factor.

Q. Is it anticipated that funds collected in the program might be accumulated over two or three reasonably good years in order to build a large enough amount to be effective in an "off" year?

A. Since this would be determined by the marketing order, the judgment of the governing board and the secretary of agriculture, our answer is purely speculation. It would appear logical to follow this plan of allowing an accumulation of funds in order to be most effective when needed.

Rural Store Opens

WALL, TEXAS—A new feed store located several miles from the nearest town has opened east of here. Known as the Wall Trading Co., it will handle feeds, seed, gasoline and groceries. Owner Roy Swafford said he is moving the feed and seed trading right out in the midst of the customers. Handling Red Chain brand of feeds, Mr. Swafford said he sold a quarter of a million pounds of feed in a week, even before the business was opened formally.

ARGENTINE CATTLE DOWN

SAN FRANCISCO — A 6% drop in Argentine cattle numbers was noted between June 30, 1956, and the same period last year. The decrease from 46,940,280 to 44,203,425 head was reported by E. F. Forbes, president and general manager of the Western States Meat Packers Assn. Primary factors in the reduction were unusually heavy slaughter in 1956 and 1957 and a shift from stock raising to grain farming.

Cattle May Gain More on Pellets, Researcher Says

LINCOLN, NEB.—If pelleted feeds are used properly in cattle fattening rations, a slight increase in gain might be expected, said Dr. John Matsushima, department of animal husbandry, University of Nebraska.

He added that the advantage of feeding pellets could be a greater efficiency in feed utilization.

Response from feeding complete pelleted rations to fattening cattle will depend upon a number of factors, Dr. Matsushima explained. They include (1) adequacy of nutrients, such as protein, minerals, vitamins, etc., in the ration, (2) fineness of grind of ingredients in the pellet, (3) hardness of pellets and (4) possible size of pellets.

The addition of a small quantity of coarse roughage in the ration and the level of feeding may also affect gains, the researcher noted.

"It has been found at the college that when cattle are on full feed with a fattening ration, the gains decrease after cattle have been on full feed of a complete pelleted ration," he explained. "The decrease in gain is particularly apparent after they have been on full feed 30-60 days.

"This decrease in gain is generally due to the decrease in food consumption. The appetite is restored, however, after the addition of two or three pounds of coarse roughage, such as alfalfa hay."

Dr. Matsushima mentioned that more experimental work is needed to determine under what conditions the use of pelleted feeds would deliver greater returns.

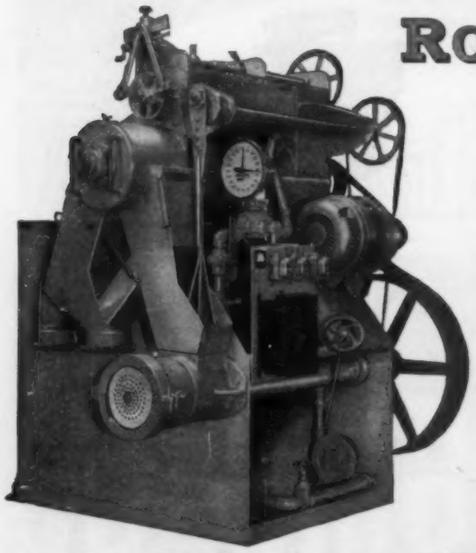
"Also to be determined are the conditions under which the use of pelleted feeds would offset the cost of pelleting and the additional cost of grinding the ingredients in preparation for pelleting," he concluded.

New Agency Named By Red Hat Feeds

DECATUR, ALA.—Advertising activities of the Red Hat Feeds division, Alabama Flour Mills, are now being handled by Robert Luckie & Co., Inc., Birmingham advertising firm.

Announcement of the appointment was made by Claude I. Carter, vice president and general manager, Alabama Flour Mills.

Alabama Flour Mills is the southern affiliate of Nebraska Consolidated Mills, Inc., of Omaha. The Red Hat division produces and markets feed products throughout the Southeast.



1000 Series
Capacity—3 tons per hr.

ROUGHAGE BUSTER

HI-MOLASSES PELLETS

For More Profits—Greater Sales

Here's your answer to production of good feeds for low cost and at high profit to you! Wenger Series 1000 Mixer and Pellet Mill combination unit enables you to turn out the smoothest Hi-Molasses meal and finest Roughage Buster Pellets—balanced molasses concentrates which convert locally available roughages into meat and butterfat at a great savings in feed costs. Backed by years of experience and leadership in molasses feed equipment, Wenger Series 1000 Pellet and Mixer combination units are unquestionably the most efficient and economical you can install. Produce Hi-Molasses Pellets from ⅜" to 1". For production of Hi-Molasses meal this model has a capacity of 6 tons per hour.

WRITE for information on other models available with pellet capacities to 6 tons per hour.

Wenger Mixer Mfg. Co.
SABETHA, KANSAS Phone 111

Standard of the Industry for Molasses Feed Mixing and Pelleting Equipment.

PAY WAY
EXTRA RICH FEEDS
ARE FAST SELLERS
Pay Way Feed Mills, Inc.
Kansas City, Mo.

Attention Feed Manufacturers — Sell Your Own Brand Dog Food

- Will increase your sales
- Will increase your profit
- Will cost you less

Let more than 30 years' experience make your product for you.

For further information call or write . . .

CARSON FOOD COMPANY
Box 801 Ph. 8840
Danville, Illinois

PACO

MOLASSES DISTILLERS DRIED SOLUBLES

Keep the "Breath of Spring" in Your Silage!

Just 50 lbs. of PACO added now to each ton assures a

Winter Supply of Sweet, Palatable Silage from Your Grasslands!

Here's an entirely new angle in cattle feeding—one that has been tested and proved highly efficient in many kinds of ensilage. The physical properties of PACO not only conserve your silage, but the proteins, essential minerals and biological factors improve feed value . . . PACO helps retain the color, fragrance and palatability of fresh grass . . . it promotes appetite and easy digestion . . . it helps maintain healthy body weight and to increase milk production . . . there is no waste through leaching, because PACO is a dry, granular, dustless material that retards seepage of the Grass Juice Factor.

Orders accepted for immediate or deferred shipment. Write, phone or wire today.

ALSO AVAILABLE IN 50-LB. PAPER BAGS

Here is the ideal, fast-selling package for direct sales to farmers and cattlemen.

PACO MOLASSES DISTILLERS DRIED SOLUBLES

A PRODUCT OF

PUBLICKER INDUSTRIES INC.

1429 WALNUT STREET, PHILADELPHIA 2, PA.

PHONE: LOCUST 4-1400

POULTRY STARTER AND GROWER?
Tastelation
Liqua-Solid
DRY FLAVORS
Double Strength
TASTE ENGINEERING, INC., 1401 W. Hubbard St., Chicago 22, Ill.

WILHOIT LABORATORY
Will Protect Your Quality
Complete analysis service on your
FEEDS and FEED INGREDIENTS
Serving the industry since 1915
619 Flour Exchange FE. 3-2994 Minneapolis 15, Minn.

TEXAS MILL EQUIPMENT CO.
MILL FURNISHERS
ROLL GRINDING
ROLL CORRUGATING
FOR FLOUR, FEED, RICE AND OIL MILLS
167 Payne St. • Dallas 7, Texas • Riverside 8-2795

Sheep Dipped as Scabies Precaution

SAN FRANCISCO — Sheep and lambs shipped from Wyoming to California for slaughter, feeding or breeding purposes are being dipped under federal or state inspection as a preventive measure against scabies.

Sheep scabies recently was diagnosed in a flock of 43 sheep at Saratoga, Wyo. California's regulations require dipping of sheep before entering the state if the sheep originate in states having sheep scabies.

During January, 1958, the disease was diagnosed in 132 flocks in 19 states. California has not had sheep scabies for 25 years. Australia, with 145 million sheep, has not had the disease in over 50 years.

FIRM ADDS STORAGE

JERSEYVILLE, ILL.—The Jersey County Grain Co. has begun construction of a new $40,000 storage building here. The structure will give the firm storage capacity of 430,000 bu.

Notes Research on Growth Factors in Meat, Bone Meal

CHICAGO — Attention was called recently to research on unidentified growth factors in meat and bone meal which stimuate chick growth.

As part of a bulletin on "New Research on Animal Fats and Proteins," Dr. O. H. M. Wilder of the American Meat Institute Foundation said that the Cudahy Laboratories have been working with an enteric growth factor derived from the intestinal tract of swine, which is said to stimulate chick growth by 20% or more. The tissue source of this factor will be in much of the meat and bone meal normally produced.

"Another factor," Dr. Wilder said, "is being studied at the Virginia Polytechnic Institute which counteracts a growth inhibition caused by feeding 1% of sulfaguanidine in the diet. Workers at VPI have reported that 5% meat meal in the diet along with the sulfaguanidine resulted in weight gains as good or better than those obtained on similar diets without the sulfaguanidine or meat meal.

"An ash factor is also present in meat and bone meal. Studies at the American Meat Institute Foundation are showing that the ash of meat and bone meal will stimulate growth of chicks by approximately the same amount as will the original material from which the ash was derived. This factor is apparently not the same as the factor studied at VPI because the ash of their material was inactive."

In his review of research on animal proteins, Dr. Wilder noted that the animal proteins are very complex materials. In addition to the protein itself, they contain vitamins, minerals, fat and several unidentified factors that stimulate growth when fed to chickens under certain conditions.

"A generous level of meat and bone meal in the broiler ration will almost always result in faster growth than is obtained from a similar ration without the meat and bone meal," Dr. Wilder said. "Some of the responsible factors are probably found in other feed ingredients, but the cost of meat and bone meal is low enough to make it a very economical source of nutrients when compared to the cost of other sources of similar nutrients."

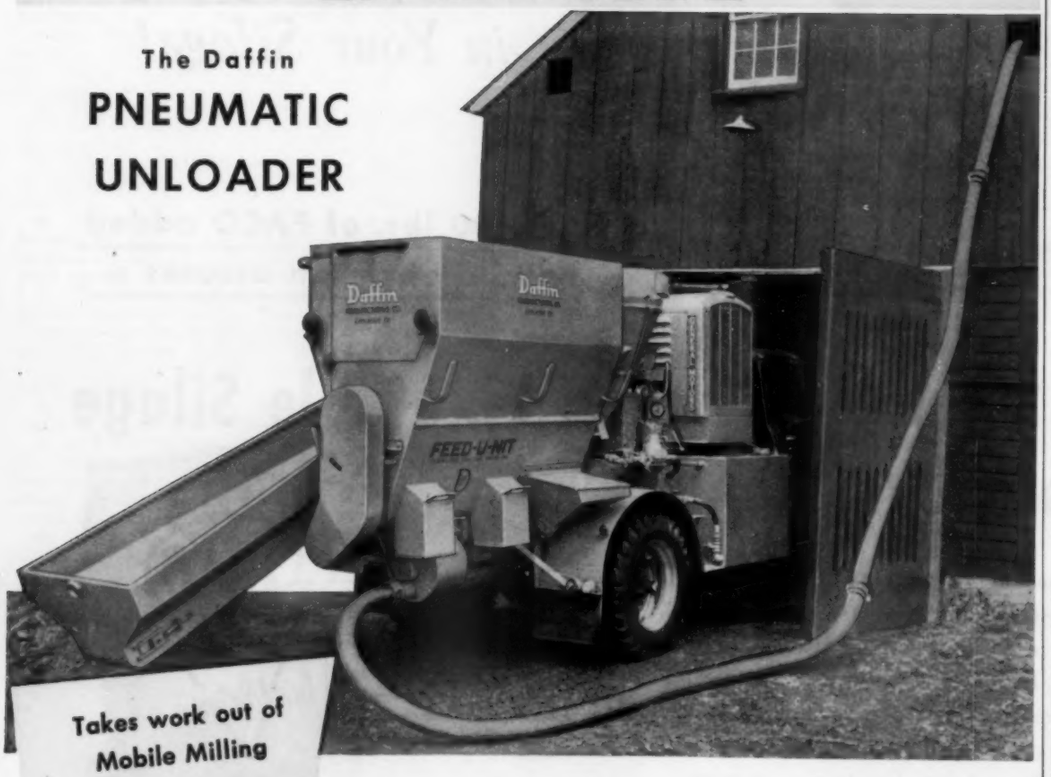
Feed Firm Moves To New Location

DELHI, N. Y. — The International Stock Food Corp., formerly located at Delhi, has moved its manufacturing facilities to a 15,000 sq. ft. one-story building in Waverly.

J. G. Forest, president of the firm, said that discontinuance of railroad service to Delhi forced the move.

Another Daffin "First"!

The Daffin
PNEUMATIC
UNLOADER



Takes work out of Mobile Milling

NOW . . . You can easily AIR-LIFT Daffin processed feed into bins as high as 40 ft. above your Feedmobile!

Daffin announces another big work-saving feature to produce MORE PROFIT for Feedmobile owners! Now, with the new DAFFIN *PNEUMATIC UNLOADER SYSTEM*, Daffin-processed feeds can be piped directly into bins, hard-to-reach self-feeders, or overhead bulk storage tanks . . . wherever the farm customer stores it! What's more, the light-weight flexible metal unloading tube is easily placed in position by one man.

FITS ANY DAFFIN MOBILE FEED MILL

WRITE TODAY FOR DESCRIPTIVE FOLDER

Daffin MANUFACTURING COMPANY
BUILDERS OF THE FAMOUS DAFFIN PACKAGED FEED PLANTS

SERVICE PARTS DEPOTS: CANADA—Toronto GEORGIA—Perry ILLINOIS—Springfield INDIANA—Indianapolis IOWA—Cedar Rapids-Sioux City KENTUCKY—Shelbyville MICHIGAN—Detroit MISSOURI—North Kansas City NEW YORK—Syracuse NORTH CAROLINA—Laurinburg OHIO—Dayton PENNSYLVANIA—Lancaster TENNESSEE—Knoxville VIRGINIA—Lynchburg WISCONSIN—Oconomowoc

DAFFIN MANUFACTURING COMPANY, 3256 NORTH PRINCE STREET, LANCASTER, PENNSYLVANIA

PROVED ON-THE-FARM
VICTOR
FEEDS
THE CRETE MILLS
CRETE, NEBRASKA

Calcium Carbonate of Constant High Purity
TRIPLE CCC QUALITY
Calcium Carbonate Company
320 South 4th St., Quincy, Illinois
Box 409, Carthage, Missouri
323 W.O.W. Bldg., Omaha, Nebraska

TOMATOES

(Continued from page 24)

beet pulp from this country is being used in this area.

Florida now produces about 300,000 tons of citrus pulp for cattle feed. About 50,000 tons of that is used in southeast Florida. Feed men point out that a satisfactory pulp produced from tomatoes in this area at competitive prices could result in a savings in transportation costs.

Analysis tests show that the composition of dry cull green tomato pulp is approximately as follows: ash 8%; protein 17.5%; fat 4.4%; crude fiber 16.6%; N-free extract 53.5%. The extract percentage is obtained by subtracting the total of other percentages from 100%. The analysis of a dehydrated juice extract, which is added back to the dry pulp, containing 3.9% moisture, is as follows: ash 12.7%; protein 11.3%; fat 4%; N-free extract 68.1%.

Experiments have been conducted with the addition of lime and calcium carbonate in various amounts. If either of these ingredients is added there is a decrease in percentage of protein and an increase in percentage of ash. However, the preliminary palatability tests indicate that most cows prefer the feed with 0 25% lime. This results in a composition of dry cull tomato pulp with 10.1% ash; 14% protein; 4.8% fat; and 17% crude fiber. The same amount of lime gives a dehydrated juice extract with a composition of 15.4% ash; 16% protein; 4.14% fat; 9.7% moisture. When lime treatment is increased to 1%, the ash content increases to 23.9% and protein decreases to 10.1%. There is relatively little change in fat or crude fiber content, analyses show.

However, the present plant is strictly on an experimental basis and a plant which would utilize all cull tomatoes in this area would cost in the vicinity of a quarter of a million dollars. During the tomato picking season, a truck load of tomatoes is dumped every three or four minutes from morning until midnight.

The pilot plant, which had its first trial run late in January of this year, was installed by Dan B. Vincent, Inc., of Tampa. It is similar to other equipment used in producing feed from citrus pulp, potatoes and beets.

Process Described

The first step in processing is to chop the tomatoes in order to increase the rate of dehydration. After the tomatoes are chopped, they are run through a screw press which removes most of the liquid. The liquid is then run through evaporators until it is concentrated to about 35% solids—a gummy substance much thicker than tomato catsup. While the liquids are being evaporated, the cakes of remaining pulp are being run through a dryer. The drying tank consists of one outside tank with a similar chamber in the middle. Drying time for the solids is from 3 to 10 minutes.

The pilot plant removes water from the tomatoes and evaporates it at the rate of about 3,000 lb. an hour. After the water is removed, the thick concentrate is remixed into the dried pulp, thus retaining the food value and making the dry pulp more palatable. There is no waste, although the possibility of other by-products is now being considered.

The capacity of the pilot plant is about 200 lb. of finished feed an hour. Large commercial units which would be used in regular production would be about five times the size of the present unit and multiple units would be used to increase production.

Ralph Celmer, from the agricultural experiment station of the University of Florida, is conducting on-the-scene tests at the plant to determine water content of the pulp at various degrees of processing, and to determine reactions of different varieties of tomatoes.

SOLULAC

70% corn distillers solubles
30% corn distillers grains

PRODUCED AND AVAILABLE EVERY WEEK OF THE YEAR

GRAIN PROCESSING CORPORATION
MUSCATINE, IOWA Telephone AMherst 3-1321 TWX495

© 1957 Primary Fermentation Products

Riboflavin — Vitamin B-12 — GP-101, source of whey and other unidentified growth factors

Now is the time to sell

thram
TRADEMARK

ANTI-PICKING SPRAY FOR POULTRY

Proved effective on Millions of Chickens... all breeds, all ages!

This is the season . . . during the spring and summer months . . . when picking is at its worst! And when profits from selling THRAM are biggest and best!

To create demand unmatched by any poultry product you ever sold, Penick's year-round national farm paper advertising for THRAM has been dynamically increased during the peak season.

Counter displays, window streamers, ad mats, literature . . . all are ready *now* to help you capitalize on the tremendous demand.

Don't lose sales while you wait for rush shipments! Check your stocks of THRAM today . . . then order from your regular distributor to be *doubly* sure your customers' needs are covered. You'll be glad you did!

AVAILABLE IN
12 x 1 pints
12 x 1 quarts
4 x 1 gallons

NATIONAL ADVERTISING TRIPLED!

THRAM is consistently promoted in these farm and poultry magazines:

Poultry Tribune
American Poultry Journal
Everybody's Poultry Magazine
The Poultryman
Broiler Growing
Farm Journal
Progressive Farmer
Missouri Ruralist
California Farmer
Pennsylvania Farmer
Capper's Farmer
Wallaces' Farmer and Iowa Homestead
Farm and Ranch—Southern Agriculturist
Farmer-Stockman
Georgia Farmer
Ohio Farmer
Minnesota Farmer
Rural New Yorker
American Agriculturist
Hatchery and Feed
Feedstuffs
Western Feed and Seed
Farm Store Merchandiser
Drug Topics
County Agent & Vo-Ag Teacher

PENICK

Agricultural Chemical and Insecticide Division

S. B. PENICK & COMPANY 50 CHURCH ST., NEW YORK 8 • 735 W. DIVISION ST., CHICAGO 10

Fleischmann's F·I·D·Y
IRRADIATED DRY YEAST
RICH IN VITAMIN D FOR FOUR FOOTED ANIMALS

NELLIS
FEED COMPANY
Brokers
of Feed Ingredients
4010 Board of Trade Bldg.
WAbash 2-7322 TWX 623 Chicago 4, Ill.

UP OR DOWN?

By Leonard W. Schruben

Agricultural Economist, Kansas State College

Turkey-Feed Price Ratio

The turkey-feed price ratio has an important bearing upon the profits from producing turkeys. It also has an important bearing on turkey growers' ability to buy manufactured feeds and to pay their bills. The turkey-feed price ratio expresses the pounds of ration which may be bought with the money received from a pound of turkey. The higher the ratio, the greater the relative prosperity of the turkey grower.

The price ratio between turkey and feed has been steadily declining since 1949. The average number of pounds of turkey ration that could be bought with the money obtained from the sale of a pound of turkey was 9.2 for the 10 years 1945-54. In 1957 the comparable ratio was 7.1, which was the lowest annual average since 1945. This trend has been partially offset by increased efficiency in turkey production.

Even though the general trend has been downward, you will note the relationship seems to work in two-year cycles. First they are up, next down. You will notice that these have been rather consistent from year to year by examining Exhibit 1, which was supplied by USDA.

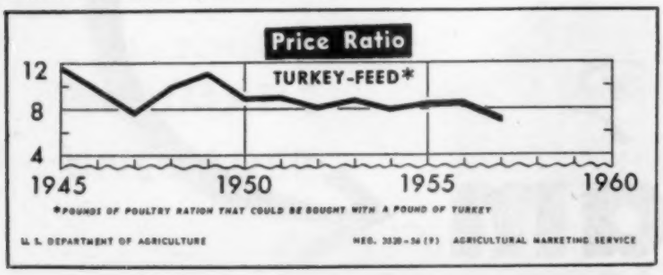
Data and charts are from 1945. On only three occasions did the trend continue in the same direction for two years in a row, and at no time did the trend continue longer than two years.

The large feed grain crops of 1957 and the record carryover of supplies into the year beginning 1958 are expected to continue to exert downward pressure on feed prices. Pressure is likely to continue well into the growing season, and unless some disaster, although not now apparent, hits the growing crop, will also continue into the fall.

If past patterns are followed, the size of the turkey flock will be increased somewhat in the fall of 1958 despite relatively unfavorable ratios this past year. Although this trend isn't necessarily borne out by reports on turkey numbers, there is no reason to believe there will be a great reduction in the number of turkeys to be raised this year. This factor would indicate that about the same total tonnage of turkey feed may be sold in producing the 1958 turkey crop as that of 1957.

New developments both in turkey breeding and in nutrition have resulted in remarkable improvement in production efficiency. The commercial feed industry has played an important part in bringing to farmers the results of new discoveries. To continue to do this should be the resolve of each feed manufacturer from the standpoint of his contribution to an improved nutritional basis for the people of the country and also from the standpoint of his ability to continue to make enough profit to stay in business.

EXHIBIT 1. Turkey-feed price ratio, 1945-47.



NEW Econolass

.....FOR INCREASED VOLUME GREATER SALES IMPROVED FEEDING PROGRAMS

An Economical, Dry Blackstrap Molasses Product with 85% Feeding Cane Molasses Equivalent Dehydrated on Soybean Millfeed

- Easy to Use
- Nutritious
- Highly Palatable

Some Distributorships Available

PROCESSING CO.

Box 394 • Muscatine, Iowa

"Branded for the Best"

North Carolina Reports Feed Tonnage Increase

RALEIGH, N.C.—Feed sold in the state of North Carolina during the calendar year 1957 was up 6½% over previous year, the North Carolina Department of Agriculture reports.

Total tonnage for 1957 was 1,300,595 tons, compared with 1,221,134 tons in 1956. Most of the increase was reflected in poultry broiler mash, which jumped from a total of 385,187 in 1956 to 442,107 tons in 1957.

Following is a comparison of the two calendar years:

Feed—	1957 tons	1956 tons
Horse and mule feed	7,588	8,257
16% Dairy feed	53,386	57,380
Other dairy feed	52,415	53,927
Dairy supplement	13,965	8,528
Cattle and sheep feed	5,981	4,354
Poultry scratch grain	48,394	50,704
Poultry broiler mash	442,107	385,187
Other poultry mash	367,767	351,032
Turkey mash	25,612	24,830
Other turkey feed	8,259	3,669
Hog feed	68,550	68,264
Hog feed concentrates	47,598	34,156
Dry dog food	19,001	17,026
Oat products	2,265	2,048
Oil seed meals	323	1,787
Cottonseed meal	33,923	39,842
Peanut meal	918	391
Soybean meal	5,671	7,184
Wheat by-products	40,233	42,472
Rice products	11	5
Packing house by-products	4,280	7,437
Brewers and distillers products	398	197
Mineral feeds	8,541	5,753
Other feeds	43,409	44,704
Total tonnage	1,300,595	1,221,134

N. J. Cow Sets World Butterfat Record

MORRISTOWN, N.J.—A cow at Lee's Hill Farm, New Vernon, N.J., has just won a world championship by producing close to a ton of butter in a year.

As she neared the end of a year of production, it became plain that the Brown Swiss with the stylish name of Lee's Hill Keeper's Raven would win the world butterfat crown.

Year end records show that the cow has given about 34,800 lb. of milk and 1,564 lb. of butterfat, or 15,700 qt. of milk and about 1,955 lb. of butter in a year.

"Other cows have given more milk in a year, but there is no doubt of the world butterfat record," according to Fred Gauntt, Milltown, N.J., a fieldman for the National Brown Swiss Breeders Assn.

The previous world butterfat mark of 1,544 lb. was held by another New Jersey Brown Swiss, Active Acres Bessie, owned by Fred S. Schluter, Princeton, N.J.

Scientists Say Feeding Study Points Way to Keeping Eggs Fresh

SAN FRANCISCO—A way to keep eggs fresh during long periods of storage may result from research reported at the 133rd national meeting of the American Chemical Society.

Improved feed for poultry and elimination of severe egg losses to the producer are also promised by a study of the changes that take place in eggs during cold storage which was described by Prof. Robert J. Evans of Michigan State University. He reported investigations of eggs from hens fed cottonseed oil. The eggs develop pink whites and enlarged, salmon-colored yolks after six months of refrigerated storage, he said.

Such deterioration, which makes the eggs inedible, occurs when protein materials from the egg whites seep into the yolk, he told the society's division of agricultural and food chemistry.

"Some component in the crude cottonseed oil is passed into the egg and apparently weakens the yolk membrane," Prof. Evans explained. "Constituents of the egg white are then able to move into the yolk, causing it to enlarge. The pink discoloration results when iron, one of the migrating substances from the yolk, combines with a protein in the egg white."

Dr. Selma L. Bandemer, Prof. J. A. Davidson and Doris H. Bauer were co-authors of the report, which told of an experiment in which 12 pullets were fed a ration containing 2.5% of crude cottonseed oil. Eggs laid by these pullets were kept for six months in cold storage and then compared with fresh ones. There was little difference in the way the egg white proteins migrated in the fresh and stored eggs. There were, however, marked changes in the egg yolks. The stored eggs contained far less amounts of such proteins as ovalbumin, conalbumin and lysosyme. There was nearly four times as much lysosyme in the transferred protein as was found in fresh eggs.

Six proteins found in egg yolks were separated by the researchers. Then the distribution of the proteins in the whites and yolks of the eggs was determined by an analytical technique known as paper electrophoresis.

Dr. Evans pointed out that the study "brings us closer to the development of methods to prevent deterioration of stored eggs whether they are obtained from hens fed cottonseed oil or normal rations."

VITAMINS PRECISION BUILT FOR PRECISION NEEDS

VITINC VITAMINS, INC.

BASIC MATERIAL MANUFACTURERS and HEADQUARTERS FOR TECHNICAL INFORMATION

Write or Wire Your Requirements

VITAMINS, INC.

800 W. 58th Street, Chicago 21, Ill.

Serving the Milling Industry A Complete Line of Quality Grain Processing Machinery for Over a Century.

B&L

BARNARD & LEAS Manufacturing Company INC.

CEDAR RAPIDS, IOWA

New Weapons Found For Battle Against European Corn Borer

WASHINGTON — New potential weapons against the European corn borer, pest which cost U.S. farmers nearly $160 million in 1957, were reported recently by U.S. Department of Agriculture entomologists.

W. D. Guthrie told of borer resistance found in corn by entomologists of USDA and cooperating states.

George T. York described microorganisms that destroy the borer as effectively as some insecticides.

The USDA entomologists addressed the annual meeting in St. Louis, Mo., of the north central branch of the Entomological Society of America.

Efforts to find borer-resistance in corn are part of a broad plan of cooperation between federal-state entomologists and plant breeders in the north central states. Aimed at borer control by this method, as an addition to insecticidal and biological control, research on this phase has been conducted at Ankeny, Iowa, and Wooster, Ohio.

Initial steps, Mr. Guthrie said, involved testing for borer resistance of several inbred lines of corn used to produce the hybrid seed now widely used by corn belt farmers.

The entomologists studied the survival pattern of borer larvae on eight inbred lines. They also checked on rates of leaf feeding and plant lesions caused by feeding. Based on these three factors, they found one experimental inbred which was highly resistant to the first and second larval stages (instars). This inbred also proved resistant to third and fourth instar larvae.

Two other inbred lines were highly resistant to first and second instars, and gave evidence of some resistance to third and fourth instars. Other inbred lines tested showed varying degrees of resistance or susceptibility, some proving highly susceptible. Only one inbred line appeared to possess resistance to stalk invasion, but this was otherwise susceptible to first and second instars, although some resistance to third and fourth instars was indicated.

Mr. York, in reporting on experimental use of micro-organisms to produce diseases in insects, said that in a single test using the bacterium Bacillus thuringiensis a 77% kill of corn borers was obtained in recent experiments by federal-state scientists at Ankeny, Iowa.

Results of the test were comparable to the best control obtained by two applications of DDT. In another test with the same pathogen, the researchers obtained an 84% kill.

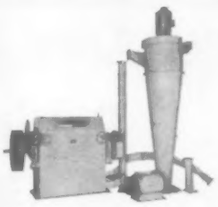
Lethal effect of this and other micro-organisms is produced, Mr. York explained, probably without leaving residues harmful to man or animals.

All-Night Lights Boost Broiler Growth Rate

STATE COLLEGE, MISS.—Use of all-night lights resulted in an increase in growth rate of broilers when used from 4-8 weeks and 0-8 weeks over those receiving no light in Mississippi State College tests.

Shelby C. Williamson and Dr. Charles H. Thomas, researchers, reporting on the trials in the publication, Mississippi Farm Research, said a study of the effects of artificial light at various stages of the brooding period on growth rate and feed efficiency showed that feed efficiency was also improved. But all-night lights from 0-4 weeks did not increase growth rate, they said.

Use of all-night lights aided in preventing the chicks from piling and smothering.



Buy Through Your Auditor's Eye

HE SEES IT'S ROSS for QUALITY

ROSS ALL-IN-ONE SYSTEM

provides packaged, matched components

Available in a wide variety of sizes, this packaged unit is for steaming, crimping, grinding, flaking, cooling, and conveying. All parts are designed to function smoothly together.

SHOWN ABOVE: 10x42 Rollerator & Air Conveying System

In operation, crimped oats discharge directly to hopper built in roller mill and the Ross Vacuum Conveyor pulls them into piping and collector which acts as a cooler and conditioner. Material is then discharged to rotary air lock—and then to sacking bin. When used with Jet Steamer grain will leave rolls at about 200° F. and on leaving rotary air lock will be about 110° F., depending on type and amount of steam added—and outside temperature. Send for full details.

Rite Ross for Results

ROSS MACHINE & MILL SUPPLY, INC.

12 N.E. 28th St. Oklahoma City, Okla.

FEEDSTUFFS

LEADER IN THE FIELD

Super Fast "Super 600" Batch Bin Loads, Unloads up to 1500 Bu./Hr.

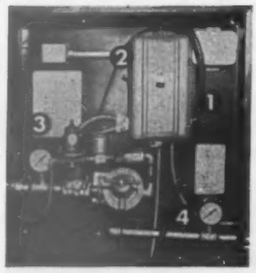
...has paid for itself in 6 weeks!

- *Heat capacity 4,000,000 Btu's*
- *Huge air delivery*
- *Automatic recirculation of grain eliminates wet pockets*
- *LP gas or oil-fired, complete safety controls.*

Its fast but gentle action makes the new Lennox "Super 600" more practical for elevator or custom drying. Load the 9 ft. drag auger from any width truck end gate. A bucket elevator smoothly hauls your grain up to eight 75 bushel bins. Complete recirculation of grain takes place without hand labor. Result —600 bushels of top quality grain quickly and uniformly dried for an amazingly low operating cost. Choose any desired heat output from 500,000 to 4,000,000 Btu's. Perforated side walls offer maximum 33% free area for air delivery.

New Features For You!

- *Extra-strong 16 gauge, skin stressed wall construction both inside and out*
- *Powered metering rolls provide uniform and positive control over grain flow to discharge augor*
- *Available with PTO or electric drive 3-phase current*
- *All units factory wired and fire-tested*
- *Built-in air cleaner removes trash lighter than grain*



Handy Control Box
(Gas-fired)

All controls are easily reached by lifting the weatherproof control box cover.

1. *Fan switch*
2. *Burner start switch*
3. *Gauge showing liquid supply line pressure*
4. *Gauge showing gas pressure to burner*

For full information on the "Super 600", write—

LENNOX Industries Inc. FARM EQUIPMENT DIVISION

F-5 East Euclid Avenue • Des Moines, Iowa

From the folks who know crop drying best

Blatchford's
ESTABLISHED IN 1900
CALF-PAB
WITH DYNAFAC
ESTABLISHED IN 1900
QUALITY
CUSTOMERS TRUST...AT A
PRICE TO GIVE RAPID TURNOVER
Get BOTH with Blatchford's CALF-PAB!
You know Calf-Pab is good. Generation after generation of calf raisers have trusted Blatchford's quality. Ask your distributor.
----FREE! 32 Page Calf Manual and Calf-Pab Sales Display.
----WRITE TODAY! Dept. 258
Blatchford's
ESTABLISHED IN 1900
Main Plant & Offices WAUKEGAN, ILL. Midwest Division Des Moines, Ia. West Coast Division Nampa, Idaho

Myvamix®
VITAMIN E
FEED SUPPLEMENT
IS DISTRIBUTED BY:

THE AMBURGO COMPANY, INCORPORATED
1315-17 Walnut Street
Philadelphia 7, Pennsylvania

CARROLL SWANSON SALES COMPANY
618 Des Moines Building
Des Moines 9, Iowa

W. M. GILLIES, INC.
244 California Street
San Francisco 11, California

GOOD-LIFE CHEMICALS, INC.
310 South First Street
Effingham, Illinois

HOLT PRODUCTS COMPANY
Box 840
Milwaukee 1, Wisconsin

KINDSTROM-SCHMOLL COMPANY
418 Flour Exchange
Minneapolis 15, Minnesota

M. A. McCLELLAND COMPANY
Dwight Building
Kansas City 5, Missouri

PLESS AND SHEAHAN
P.O. Box 2654
Memphis 2, Tennessee

THE JOHN F. YOUNG COMPANY
3270 Southside Avenue
Cincinnati 4, Ohio

IN CANADA
CHARLES ALBERT SMITH, LIMITED
356 Eastern Avenue
Toronto, Ontario

8307 Royden Road
Montreal, P. Q.

And, of course, you can get it directly from *Distillation Products Industries*, Rochester 3, N. Y. Sales offices: New York, Chicago, and Memphis.

producers of
Myvamix
Vitamin E
DPi

Distillation Products Industries
is a division of
Eastman Kodak Company

WHAT'S NEW IN FEEDING?

Putting Research to Work

By Spencer H. Morrison, Ph.D., D.V.M.

Seasonal Variation in Quality of Eggs Laid by Caged Layers and Their Sisters on the Floor

● G. W. Froning and E. M. Funk, University of Missouri; Poultry Science, Vol. 37, No. 1.

ABSTRACT

Forty eight April hatched SCWL pullets were divided into two equal groups and placed either in 10x18x15-inch individual cages, or in a floor pen (3½ sq. ft. per bird) on Nov. 1, 1955. All birds were fed an all-mash ration containing 16% protein and 860 calories productive energy. The floor pen could be described as better than average commercial practice since it was insulated, force-ventilated, windowless, and was heated part time. Both floor and cage birds were housed in the same quarters. The winter temperature never went below 45° F. due to automatic switching on of a supplementary heating unit. The summer temperature never exceeded 90° F. in the room.

Beginning in November, 1955, eggs were broken in alternating months until March, 1957. From November through May the eggs were allowed to remain in cages until 4 p.m., while the floor birds were trapnested hourly, and their eggs allowed to set on a filler flat in an outer egg room until 4 p.m. Both groups of eggs were then transferred to a 55° F. cooler. Starting in July and continuing for the remainder of the trial, the eggs were gathered four times daily and were placed directly in the cooler.

The egg weights were significantly higher for the caged birds (average 59.6 grams) than for the floor birds (average 58.1 grams). Warmer temperatures had an adverse effect upon egg shell thickness, and recovery in the fall season was not to original levels. Little difference was observed between caged and floor birds regarding egg shell thickness. Although no seasonal trend was indicated in the percent of thick albumen, caged birds showed consistently higher thick albumen height and percent of thick albumen. There were significant seasonal variations in Haugh units, but no significant differences in egg quality could be attributed to the management systems. Meat and blood spots were highest in March for both groups, and the caged birds showed a much higher incidence of this condition (3.8% higher), chiefly because of an increase in small and large meat spots.

COMMENT:

Many people have been advocating caged birds recently because they claim higher egg production of better quality eggs. Although the experimental numbers used in this experiment are disconcertingly small, the experimental design was well controlled, and this trial adds to our information on the interesting subject of whether or not caged birds actually do better than floor birds housed under good conditions. It is the opinion of many people that the advantages claimed for caged birds can actually be secured at less cost by proper housing of floor birds in insulated, well ventilated buildings, and gathering eggs frequently.

Several workers have demonstrated that egg production is not affected appreciably by proper housing of birds, either in cages or floors—for example, Gowe (1955). On the other hand, other workers have demonstrated higher egg production in caged birds—Lowry et al. (1956), King et al. (1956), under well controlled experimental conditions. We need more work on this subject in view of the conflicting opinions held, so that feed manufacturers will be recommending a system which will give the best results for the ultimate good of their customers.

EDITOR'S NOTE: Dr. Spencer H. Morrison, Clinton, Iowa, is the new author of this department of Feedstuffs. Dr. Morrison, who now provides a consulting service, formerly was with Pillsbury Mills, Inc. Earlier he did research and taught at three universities. He also is active in the publication of Morrison's Feeds and Feeding. He holds doctor's degrees in both animal nutrition and veterinary medicine.

●

Chlortetracycline and Tetra Alkylammonium Stearate in Lamb Rations

● R. M. Jordan, University of Minnesota; Journal of Animal Science, Vol. 17, No. 1.

ABSTRACT

Two trials using 185 good quality native feeder lambs were conducted during the winter and spring months of 1956-57, with hand-fed fattening rations of shelled corn, brome hay, protein supplement, trace mineralized salt and bone meal. In experiment I, 70-lb. feeder lambs were fed equalized levels of protein from a supplement consisting either of soybean oil meal or a mixture of feather meal and corn. In experiment II, 80-lb. feeder lambs were fed soybean oil meal as the protein supplement. In both experiments, two lots served as controls, two lots received the control ration plus 200 mg. of tetra alkylammonium stearate per lamb daily, and two lots received the control ration plus 40 mg. of chlortetracycline per lamb daily. In trial I the lambs were on feed 70 days, and the average daily gain of the lots varied from 0.45 to 0.48 lb. In trial II, the lambs were on feed 59 days, and the daily gain varied from 0.61 to 0.67 lb.

Neither chlortetracycline or tetra alkylammonium stearate in the lamb rations appeared to have any significantly beneficial effects with respect to increased rate of gain, feed consumption, feed efficiency or prevention of enterotoxemia. The excellent gains made by these lambs indicate that the level of disease and stress present was low. There was a tendency for the tetra alkylammonium stearate-fed lambs to bloat during the first two weeks of the first experiment; however, this was not noted during the second experiment. The lots receiving chlortetracycline recovered from a scouring condition which was present in the first experiment somewhat faster than the other lots. Feather meal-fed lots in experiment I performed fully as well as soybean oil meal-fed ones, and consumed slightly less hay.

COMMENT:

Tetra alkylammonium stearate has given variable results in beef cattle rations to date. Apparently western type rations based heavily on barley, beet pulp, etc., show a response to the addition of this product (Dyer, Burkitt and others—1957.) On the other hand, midwestern type rations based largely on corn have not shown very great responses to the addition of tetra alkylammonium stearate (Beeson, et al., and Burroughs, et al. —1957). It would be interesting to know whether this same effect will be observed in lambs fattening on high barley rations.

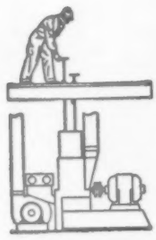
Feather meal is apparently a good source of protein for lambs. It has already received favorable acceptance by the feed industry in poultry rations. Recent work by the Tennessee and Florida stations (1957) also indicates that feather meal is equal to soybean oil meal for swine as part of the protein supplement. Naturally, feather meal should be of good quality and properly processed for use in all feedstuffs.

REMEMBER TO ORDER
CHASE BAGS
There's None Better!

OVERALL
OUTLOOK
on industry developments comes to you weekly . . . while it's still news in
FEEDSTUFFS

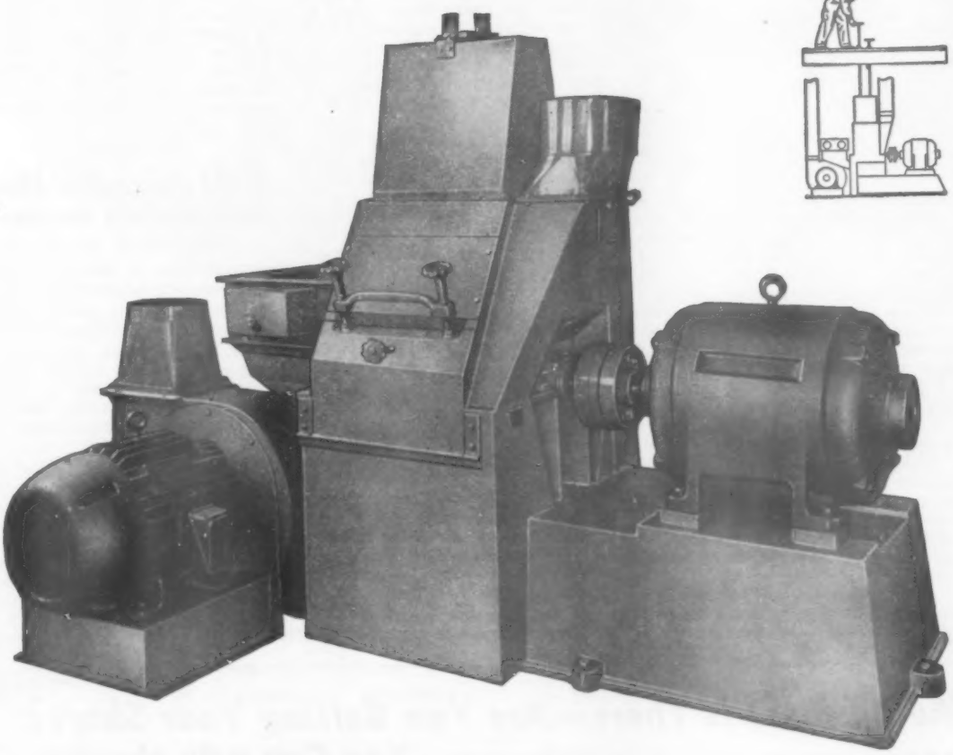
CARGILL
Cargill CREATIVE PROCESSING
CREATIVE PROCESSORS OF FARM PRODUCTS

Every Jacobson Hammermill Is Built for Keeps!



JACOBSON
INSTANT REMOTE SCREEN CHANGE
"MASTER"

PATENT NO. 2,640,650



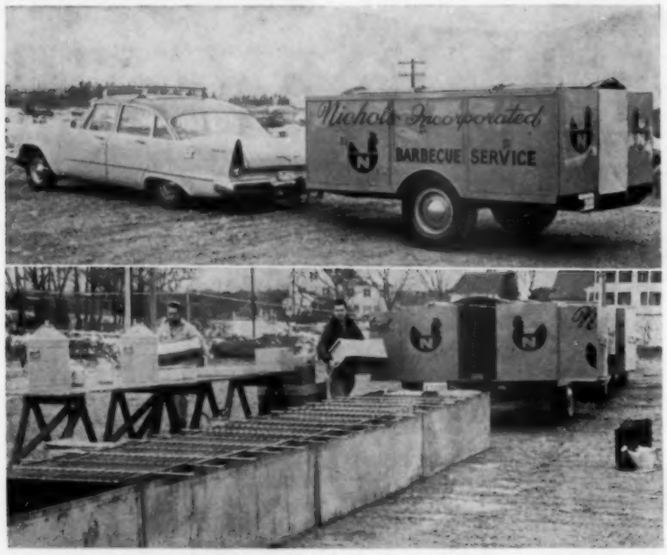
"MASTER"—For Large Capacity Custom Grinding
65 To 140 H. P.

Send for New Bulletin and the Name of Your Jacobson Sales Representative

Jacobson MACHINE WORKS

48 Years of Continuous Service to the Feed Industry

1090 TENTH AVE. S. E. Dept. M. MINNEAPOLIS 14, MINNESOTA



BARBECUE FRANCHISES—Individual franchises for operating the chicken barbecue service originated by Nichols, Inc., Exeter, New Hampshire, are now available in selected areas throughout the U.S., according to a company spokesman. Two types of plans are available. One, offered to processors, is designed for serving brand-identified chicken at supermarkets and shopping centers. Another plan, for use as a catering service for company outings, community picnics and similar affairs, includes a promotional program and use of the Nichols name. Both plans are based on cash purchase of Nichols-developed equipment, shown above, including a compact trailer capable of carrying all racks, pits, sprayers, fuel, iced chicken and complete menus for serving 450 people.

Texas Feed Microscopy Short Course Set Up

COLLEGE STATION, TEXAS — The second annual Feed Microscopy Short Course will be held Aug. 4-9 at the Texas Agricultural Experiment Station at College Station. Training will be provided for beginning personnel in the science of microscopy, a tool used in feed quality control.

The course will be under the direction of E. E. Brown, station microscopist, and will consist of lectures, demonstrations and laboratory practice in the use of a microscope to identify structure in plant and animal tissue.

A special section will be set up for those who have had previous training and experience to study methods of ingredient separation from mixtures and determine quantitatively their percentage by microscopic analysis.

A total of 11 people attended the course last year. Of this number four were from the Texas feed industry and one from a Texas industrial laboratory. Six came from out of state. The out of state people attending were from Colorado, Oklahoma, Arkansas, Missouri, Kansas and Illinois. Five of the latter group were from state feed control laboratories, and one from the feed industry, representing a firm doing interstate business.

The nature of the equipment used and the facilities needed for offering the course were such that the registration had to be severely limited. Only those who could supply all or part of their own equipment could be accepted last year. This year, extra equipment and facilities have been made available for use in the course, and a total of 50 registrations will be accepted.

Feed manufacturers, feed processors, regulatory services and others complying with and interested in programs of quality control are invited to send personnel to attend the microscopy short course. This is a special short course and does not carry college credit.

Those interested in attending the 5½-day session may write to E. E. Brown, State Chemist Office, Texas Agricultural Experiment Station, College Station Texas, for a registration blank.

Named to Board of Pfizer Subsidiary

NEW YORK — Election of Dr. Franklin S. Chance, Jr., as a member of the board of directors of Pfizer International Subsidiaries has been announced by John J. Powers, Jr., president of the Subsidiaries.

Dr. Chance, recently appointed production and research coordinator for Pfizer International, previously served for six years as assistant director of chemical research and development for the parent company, Chas. Pfizer & Co., Inc.

A native of Knoxville, Tenn., Dr. Chance earned a degree in chemical engineering at the University of Tennessee and worked for several years in development with E. I. du Pont de Nemours & Co., Wilmington, Del.

To qualify for more specialized research, Dr. Chance returned to the University for his doctorate. In the course of writing his dissertation for the degree, published in 1951, he worked for a year at the Oak Ridge Institute for Nuclear Studies.

He has been granted several patents in various countries in the area of plastics and elastomers. He is a member of the American Chemical Society, the American Institute of Chemical Engineers and is a former trustee of the National Nephrosis Foundation.

ADM Executive Heads Oil Chemists Society

MINNEAPOLIS—James C. Konen, vice president in charge of research for Archer-Daniels-Midland Co., Minneapolis, has been elected president of the American Oil Chemists Society.

Mr. Konen took office at the group's convention recently in Memphis, Tenn. The society is composed of about 3,000 scientists, and is the leading scientific organization in the fats and oils industry.

Long active in the society, Mr. Konen formerly was vice president. He has served on the governing board, as chairman of the subcommittee on analysis of drying oils, as chairman of the subcommittee on analysis of flaxseed and linseed meal and on the membership committee. He was general chairman of the group's 1954 national convention in Minneapolis.

JAY BEE

The Business is There—Are You Getting Your Share?

You Can with the

JAY BEE All-in-One® FEEDMAKER

The Mobile Feed Processing Plant with "Texture Grind"

J. B. SEDBERRY, INC., Dept. F., Franklin, Tenn.

Please send me complete information about the Jay Bee All-in-One Feedmaker.

Name .....

Company .....

Street or Box .....

City ..... Zone .... State .....

For more business and more customers, take your service to the farmer with a Jay Bee All-in-One Feedmaker—a complete custom mill on wheels. Increase your sales and profits—save the farmer money — by blending your concentrates, minerals, and liquid molasses with his grain and roughage, right in his barnyard.

"TEXTURE GRIND" —Horsepower for horsepower, screen for screen, a Jay Bee will produce a finer, more uniform texture of grind than any other hammermill made.

To find out what the Jay Bee All-in-One can do for you, mail this coupon today!

J. B. SEDBERRY, INC., FRANKLIN, TENNESSEE

IN THE WEST

FEED PRODUCTS, INC.

William H. Kieser, Sr.
President

William H. Kieser, Jr.
Secretary-Treasurer

M. R. Stafford
Vice-President

CAN SERVE YOU BEST

Representing

DIKAL
CORONET DICALCIUM PHOSPHATE

CORONET GRANULAR DIKAL
A premium phosphorus supplement that boosts feed performance.

Pfizer

ANTIBIOTIC AND VITAMIN FEED SUPPLEMENTS

Tasty-Pheen
CONTROLS WORMS IN HORSES
NO DOSING
NO DRENCHING
NO BAD TASTE
NO ILL EFFECTS

nf-180
bifuran

Those lifesaving Nitrofurans. Germ killers that last from
HESS & CLARK, INC.
Specialists in Feed Medication

GRACE
A WORLD OF EXPERIENCE

GRACE CHEMICAL COMPANY
Division of W. R. Grace & Co.
Manufacturers of feed grade Microprilled Urea.

DOW

DOW CHEMICAL
fumigants

Check Our Service on

CORONET GRANULAR DIKAL and your other needs

✓ WHERE — With our home office in Denver, prompt, dependable delivery is provided anywhere in Colorado, Western Nebraska, Wyoming and New Mexico.

✓ WHEN — Shipments are made direct from the feed ingredient manufacturer or from our Denver warehouse . . . when you need them.

✓ HOW — The experienced know-how of our personnel is at your disposal at all times . . . plus formula help, if needed.

✓ WHO — Ask for W. H. Kieser, Sr., W. H. Kieser, Jr., or M. R. Stafford in our Denver office.

FOR QUICK SERVICE . . . Call AComa 2-5706

FEED PRODUCTS, INC.

1370 ELEVENTH STREET — DENVER 4, COLORADO

☆ Classified Ads ☆

Classified advertisements received by Tuesday each week will be inserted for the issue of the following Saturday. Rates: 15¢ per word; minimum charge $3.25. Situations wanted, 10¢ a word; $1.50 minimum. Count six words of signature, whether for direct reply or keyed care this office. If advertisement is keyed, care of this office, 20¢ per insertion additional charged for forwarding replies. Commercial advertising not accepted in classified advertising department. Display advertising accepted for insertion at minimum rate of $10.50 per column inch. All Want Ads cash with order.

HELP WANTED

EXCELLENT SIDE-LINE OR FULL TIME item for salesman selling to feed, grain, farm equipment dealers and farmers. Liberal commissions. Replies will be held confidential. Write Doane Agricultural Service, Inc., St. Louis 8, Mo.

MILLWRIGHT — MAN WITH EXPERIENCE in feed mill with knowledge of all machinery common to large operation. Must also be capable of welding and handling of maintenance crew. Mill located in Southeast. Address Ad No. 3754, Feedstuffs, Minneapolis 40, Minn.

SALESMEN WANTED, CALLING ON dealers in rural areas. Excellent exclusive territories available. Reliable product accepted by hardware, feed, milling, drug, general retail outlets. State experience and territory desired. Address Ad No. 3704, Feedstuffs, Minneapolis 40, Minn.

DISTRICT MANAGER WANTED — LARGE national vitamin company needs experienced man to represent them in Arkansas, Mississippi, Alabama, Tennessee. Background in nutrition desirable. Must be now living and working in the territory. Address Ad No. 3743, Feedstuffs, 141 W. Jackson Blvd., Chicago 4, Ill.

FEED SALESMAN WANTED FOR PROV-en area—central Illinois. We have a man retiring and need a replacement. The territory is well established and company well known. Commission rate excellent—pay is superior—contact us now. Address Ad No. 3745, Feedstuffs, Minneapolis 40, Minn.

POULTRY NUTRITIONIST WITH AT least Master's degree, combined with desire to sell formula feeds throughout Caribbean. Possibility of residing Puerto Rico. Fair Spanish necessity. Remuneration would be amply attractive plus overage for sales above present volume of established family-owned Midwest manufacturer. Submit resume of qualifications for confidential consideration. Address Ad No. 3724, Feedstuffs, Minneapolis 40, Minn.

SALESMAN WANTED

I am looking for a representative presently calling on feed dealers and elevators to carry a well established calf milk replacer. Distributed nationally and backed by national advertising. Will add $300 to $500 per month income for good, energetic man. A few choice territories open.

Give complete details. Write P. O. Box 5020, Minneapolis, Minn.

MACHINERY WANTED

WANTED—USED HOWE MIXER. STATE size, age and price. William R. Rogers, Inc., Beverly, Mass.

ALL KINDS OF GOOD USED GRAIN processing machinery. E. H. Beer & Co., Inc., Baltimore 2, Md.

A SELF-UNLOADING TRAILER, EITHER a Bert and Wetta, Load Queen, Prairie Schooner, or a similar trailer. Le Center Alfalfa Dehydrating Co., Le Center, Minn.

GOOD GRAIN, FEED, SEED, CHEMICAL machinery. Motors, scales, gearheads. Commercial Machinery Co., 535 Minnesota St., San Francisco 7, Cal.

WANTED — USED 6,000 TO 25,000 LB. floor or suspended type hopper scales, with or without TR beam. Sanders Co., Inc., Alpha Road, Greenwich, Ohio.

USED — 30-INCH MUNSON ATTRITION Mill. Advise age, model number, condition and price. Henry Van Herzeele, Box 185, Atkinson, Ill.

WANTED TO BUY — RICHARDSON scales, bag closing machines and other good mill, feed and elevator equipment. J. E. Hagan Mill Machinery, Jefferson City, Mo.

MACHINERY FOR SALE

UNION SPECIAL SEWING MACHINE, complete with carrier. Thello Dodd, 1416 Claflin Circle, Manhattan, Kansas.

MACHINERY FOR SALE

WHIRLAWAY AIRBLAST CAR LOADERS, cast iron pulleys, new and used feed and elevator equipment. Hagan Mill Machinery, P. O. Box 574, Jefferson City, Mo.

FOR SALE—ENCLOSED MOTORS; RICHardson Scales; truck scales; hammermills; oat crimpers; horizontal and upright feed mixers; sewing machines; elevator legs; screw conveyors; molasses mixers and pellet mills. J. E. Hagan Mill Machinery, Box 574, Jefferson City, Mo.

FEED MIXER, 1-TON CAPACITY, GUARanteed first-class throughout, 5 H.P. motor drive. Address Ad No. 3479, Feedstuffs, Minneapolis 40, Minn.

PNEUMATIC "AIR-CONVEYOR" SYSTEMS —Positive pressure, Sutorbilt, new or used, any size, capacity, distance or product. Nolder Co., Box 14, Corona Del Mar, Cal.

CHAMPION MOBILE GRINDER AND MIX-er units. Champion Portable Mill Co., 2105 Como Ave., Minneapolis 14, Minn.

LATE 1955 DAFFIN MOUNTED ON 6400 Chev., A-1 condition. Address Ad No. 3730, Feedstuffs, Minneapolis 40, Minn.

FOR SALE—SW 40 H.P. PELLET MILL, Cooler and Crumbler. May be seen in operation. Address Ad No. 3733, Feedstuffs, Minneapolis 40, Minn.

AIRPLANE TIRES FOR FIELD CHOP-pers and wagons. We have wheel assemblies to fit your equipment. Hoy Machinery Co., Baldwin City, Kansas.

USE 34x9, 12-PLY NYLON AIRPLANE tires as a perfect replacement for 7.50x16 or 9.00x16 conventional tires. Unused tires $35 each or 10 at $32.50 each. Hoy Machinery, Baldwin City, Kansas.

ONE-YEAR-OLD FELL-O-MATIC DRY Pellet Mill with dies, crumbling roll, scalper and all electrical. Archer Coop. Grain, Archer, Iowa.

24-TON MOLASSES TANK, STEEL LEGS. In very good condition. With 4-inch valve. Robert A. Ross, 809 Clay St., Watertown, Wis.

FOR SALE — DAFFIN MOBILE FEED Mill. Excellent condition. Cost approximately $19,000—will sell for $10,500. Alldredge Madget Feed & Supply Co., Rte. 4, St. Joseph, Mo.; Tel. 4-8934.

DAFFIN FEEDMOBILE, EXCELLENT condition complete with Diesel powered corn sheller and unloader. Priced to sell, route system and proper training included. Address Ad No. 3727, Feedstuffs, Minneapolis 40, Minn.

CUSTOM GRINDING OUTFIT, CONSIST-ing of 60 H.P. Blue Streak Hammermill, ton upright mixer, truck hoist, pit drags and corn sheller. Priced right. Ray Jones, Jefferson City, Mo.; Phone 6-4924.

UNIVERSAL PELLET MILL, MODEL AAA, 75 H.P. TEFC motor, crumbler attachment, extra dies, roller shells, starters and controls. Reasonably priced. Address Ad No. 3746, Feedstuffs, Minneapolis 40, Minn.

FOR SALE—BLUE STREAK NO. 6A MILL with pipe, elbow, collector, with 75 H.P. 220-volt motor, starter, ammeter, mounted on base with coupling, mill has magnet, good condition, priced right, write or phone Farmers Cooperative Co., Ellsworth, Iowa.

COMPLETE HAMMERMILL — ONE COM-plete Jay Bee 6-W Hammermill with switches and ammeter, 200 H.P. Crocker-Wheeler explosion and dust proof motor, 3-phase, 440 amp., 3,600 R.P.M. complete with Cyclone. Schoeneck Farms, Inc., Nazareth, Pa.

BRAND NEW RICHARDSON G-38 MASH feed bag scale, ¼ price; two Apex, one Mikro Weight bag scales, 50 & 100 lb.; two used G-38 Richardson; one molasses feed; one Richardson grain sacking scale, 2 bu., automatic; four small sack scales, 25 and 50 lb.; 49A Clipper, near new; Eddy Huller-Scarifier; three G-W Jumbo corn sifters; style Q Allis 15x30 crimper; No. 8 Oliver separator; 1-ton K-D mixer with signal bag scale; new Anglo molasses mixer. Other items. Write us your needs. Ross, Inc., 12 N.E. 28th St., Oklahoma City, Okla.; Phone JA 8-2132.

Use Feedstuffs WANT ADS for RESULTS

BUSINESS OPPORTUNITIES

FOR SALE—WELL ESTABLISHED FEED business in good feed area, manufacturing own brand feed. Located in south central Iowa. Equipment A-1 condition. Address Ad No. 3740, Feedstuffs, Minneapolis 40, Minn.

OPPORTUNITY—IF YOU ARE EXPERI-enced in the grain elevator business and if you have limited capital and a reputation for integrity, you can own within a very few years a 150,000-bushel elevator and warehouse in Memphis, Tenn. Owner wants to retire. This is a real bargain. Please call or write E. O. Bailey & Co., Inc., 128 Monroe, Memphis, Tenn.; JA 5-1481.

FOR SALE

COMPLETE FEED MILL IN TOMS RIVER, N.J. ALL MACHINERY INTACT, READY TO OPERATE.

Tidewater Machinery Co.
10 South 18th Street
Philadelphia 3, Pa.

When you want to Buy or Sell
ELEVATORS or
FEED MILLS
See or Write Us Your Needs
We Have Some Good Ones in
OHIO-INDIANA-
ILLINOIS
MID-WEST BUSINESS EXCHANGE
Halbert C. Smith Plymouth, Ind.

MISCELLANEOUS

NEW PRODUCTION POULTRY BUILD-ings insulated and lined, including automatic ventilation, 2,500 bird size, complete package $2.40 per bird. Permco Mfg. Co., Peru, Neb.

LIQUIDATION SALE — EIGHT LOUIS-ville Rotary Steam Tube Dryers, 6'x50', 6'x30', 6'x25', also Dewatering Presses, Davenport No. 1A, No. 2A, No. 3A, Louisville 8-roll 36". Spiral Ribbon Mixers 336, 100, 75, 15 cu. ft. Storage tanks from 1,000 gal. to 20,000 gal., steel, stainless steel, aluminum. Perry, 1403 N. 6th St., Philadelphia 22, Pa.

ATTENTION DEALERS

BALER AND BINDER TWINE . . . premium or competitive quality. Compete with Coops and Discount Houses. If unable to buy carlots, pool with your neighbor. BUY at JOBBER PRICES. ACT NOW. Address Ad No. 3728, Feedstuffs, Minneapolis 40, Minn.

FOR LEASE
GRAIN STORAGE TANKS

4 STEEL STORAGE TANKS 114' - 6" DIA. X 30' HIGH. EQUIVALENT 220,000 PLUS BUSHELS EACH TANK.

All tanks standing location near Cromwell, Oklahoma. Will lease for in place use. Write or call for further information.

SOUTHWEST STORAGE CO.
P.O. Box 2534
Phone CHerry 2-9128
Tulsa, Oklahoma

Pfizer First Quarter Sets Sales Records

NEW YORK—Sales and earnings of Chas. Pfizer & Co., Inc., for the first three months of 1958 were the highest for any first quarter in the firm's 109-year history, John E. McKeen, president, told shareholders at the recent annual meeting.

Sales totaled $53,779,115, compared with $50,703,614 in the same period a year ago, an increase of 6%, he pointed out. Profits were $6,526,263 against $5,485,298 in the 1957 quarter, a gain of 19%. Earnings per common share were $1.20, compared with $1.01 a year ago.

All the company's major product groups showed increases in both domestic and international markets, Mr. McKeen reported. Among them were agricultural products.

Mr. McKeen pointed out that work is beginning on several vaccines for farm animals and poultry as part of a general program of continued diversification which includes entry of the firm in the field of vaccines. He also announced plans for the firm to market Tran Q, a tranquilizer feed supplement for livestock, within the next few months.

Looking back at the year completed, he said, "The agricultural phase of our business continues to grow." He said aggressive salesmanship is playing an important role in this growth.

In his look ahead, he said the company plans to "push ahead with greater vigor. Over the next two or three years, we will build major new research and production facilities both in the U.S. and abroad." These new facilities, he said, will enable the firm to broaden the work it is doing with lysine and other amino acids, in addition to many other chemicals and agricultural products.

Nearly 1,200 shareholders and guests, a record number, attended the meeting and heard reports. They reelected 12 members of the board and elected one new member, J. Philip Smith, general manager of the firm's chemical sales division.

Antibiotic Assures Healthier Lambs

DAVIS, CAL. — Creep feeding of Aureomycin with alfalfa pellets to milk lambs on the California north coast range helps assure healthier lamb flocks, says a University of California veterinary researcher.

Dr. Blaine McGowan said: "Aureomycin may not always pay its way in actual returns. This is especially true when there is no problem of disease. But since it is impossible to forecast disease outbreaks, we feel that sheepmen would be wise to consider the cost of Aureomycin as a standard expense, just as they do premium on an insurance policy."

Dr. McGowan said he and R. A. Shippey, county farm advisor, recently completed several trials in which the antibiotic offered a high degree of protection from enterotoxemia. In one trial, they said, lambs on Aureomycin and pellets returned $11.96 per head; lambs on pellets alone, $8.08; lambs receiving no supplement, $10.75.

The drug was fed at a rate of .5 mg. per day per pound of body weight.

In another trial there were no deaths in the test flocks, and lambs without supplements or Aureomyin cost less to fatten and brought higher returns, Dr. McGowan said.

In both trials, flocks receiving alfalfa pellets, with or without Aureomycin, showed a much higher percentage of choice, fat lambs than the unsupplemented flocks.

FEED MILL REBUILT

ALTOONA, ALA.—Construction of a new feed mill to replace one destroyed recently by fire is under way at the Altoona Farmers Cooperative. Announcement of the new mill was made by Ira Davis, manager.

California Turkey Men Back Disease Research

DAVIS, CAL. — California turkey raisers are banding together to support new studies of egg-borne diseases by University of California veterinary researchers.

More than $16,000 of the $20,000 quota have already been subscribed by members of the California Turkey Federation, according to officials of that organization. The regents of the university had previously approved the soliciting of funds for this project.

The money will go for construction of additional research facilities on the Davis campus. Dr. Henry E. Adler and others of the veterinary science department will undertake the research work. Specific turkey diseases to be studied include paracolon, paratyphoid and those caused by PPLO (pleuropneumonia-like organisms).

Work on the new facilities may begin as early as this summer, said Dr. Adler.

Edson C. MacMullen

SALES DIRECTOR — The appointment of Edson C. MacMullen as sales director in New England and New York state has been announced by the H. K. Webster Co., Lawrence, Mass., and Richford, Vt. He succeeds Sidney I. Dean, Jr., who died recently. In directing the activities of a 22-man sales and service organization, Mr. MacMullen will be assisted by Harvey F. Pineo, assistant sales director, who will handle the office responsibilities of sales direction at the firm's headquarters in Lawrence. Mr. MacMullen started in the feed business in 1935 in a retail establishment, and shortly moved into sales work, along with dairy and poultry service.

CONFERENCE

(Continued from page 16)

ed. Low hatchability of fertile eggs resulted on the Torula yeast diet, which was increased to approximately normal by adding 20 units of vitamin E per pound of diet. The substitution of dried brewers yeast for the Torula yeast had only a slight effect in increasing the hatchability. Early chick mortality of chicks from hens fed the respective diets ranged from 42 to 46% even though these chicks were fed a practical diet from one day of age. Supplementation of the Torula yeast diet of the hens with vitamin E reduced the chick mortality to normal, and substitution of brewers yeast for the Torula yeast in the hen diet had a similar effect on reducing early chick mortality.

From this presentation, it was concluded that brewers yeast did not hold up hatchability of fertile eggs when substituted for Torula yeast as did vitamin E. Chick mortality was prevented by both brewers yeast and by vitamin E.

Dr. M. L. Scott, Cornell University, has observed and reported on many occasions the vitamin E-like activity of dried brewers yeast. More recent reports would indicate that such vitamin E-like activity was possibly due to the selenium content of the dried brewers yeast. It has been repeatedly observed in the department of poultry science of the Texas Experiment Station that dried brewers yeast has a vitamin E-like effect in maintaining turkey hatchability and also contains an unidentified factor which is necessary for turkey hatchability even in the presence of an adequate amount of vitamin E in the form of alpha-tocopheryl acetate.

Dr. Jensen concluded that brewers yeast either contained another factor, heretofore undesignated, to be necessary for chick livability or that Torula yeast contained a toxic factor concerned with hatchability of fertile eggs, embryonic development and chick livability. It was pointed out during the discussion that Torula yeast is high in unsaturated fatty acids.

Cornell Report

The second paper was presented by M. C. Nesheim, Cornell University, Ithaca, New York, and was entitled "Studies on the Nutritive Effects of Selenium for Chicks." Mr. Nesheim is working with Dr. M. L. Scott. The reader is again referred to the discussion by Dr. L. C. Norris, page 63 of the 13th Distillers Feed Conference Proceedings, on "sulfur and selenium." It was pointed out during this discussion that .08-.1 ppm selenium is required to prevent exudative diathesis and that the Torula yeast diet used in these studies contained .056 ppm selenium. The selenium analyses presented by the Cornell group are extremely accurate and have been obtained through neutron analysis procedures from the Oak Ridge National Laboratory. A soybean protein basal often used in these studies contains 0.36 ppm of selenium.

The reader's attention is directed to two earlier reports in Feedstuffs by Dr. M. L. Scott (August 10, 1957, page 39) and Dr. E. L. R. Stokstad, American Cyanamid Co., Pearl River, N.Y. (August 31, 1957, page 30).

Mr. Nesheim also reported on muscular dystrophy studies with chicks and described muscular dystrophy symptoms in the chick as consisting of grossly visible white striations on the breast muscle in chicks affected with muscular dystrophy. The incidence of muscular dystrophy in chicks was reduced by adding .1 ppm selenium to the diet and was completely prevented by adding vitamin E and also by adding methionine.

Dried brewers yeast contains .6 ppm selenium, which could provide a supplemental level of selenium to a formula when this ingredient is used in practical feed formulation.

Growth was appreciably decreased in chicks affected with muscular dystrophy.

SUMMARY: It is apparent to the reader that the subjects discussed before this group were primarily on the research level and in some instances were quite technical. The practical nutritionist will no doubt be interested in the pigmentation studies, the energy-protein relationship report and the report on the toxic feed ingredient associated with the use of certain fats. Attention is also directed to the current observations on the status of methionine. The reports on zinc and selenium have been discussed and evaluated. Under no circumstances should selenium be added to practical poultry feeds. A new method has been proposed for determining the biological availability of vitamin A. Many laboratories will, no doubt, test the efficacy of this proposed new method in the very near future.

CONTEST WINNER—J. V. O'Leary (right), general sales manager of Commercial Solvents Corp., New York, recently announced the winners of a contest conducted by the animal nutrition department for sales of Baciferm, the firm's patented zinc bacitracin antibiotic supplement. He is shown presenting the first prize, $500, to Fred Klatte. The second prize, $250, went to Norman Stark; John Recker won $125 as third prize. In addition to the final prizes, there were monthly cash awards for the best Baciferm sales each month.

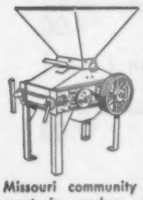
TO REBUILD MILL

BLAIR, WIS.—The Anderson Bros. Feed Mill, destroyed by fire recently, will be replaced by a new metal and concrete structure, according to the co-owners, Ivan and Rudolph Anderson. The waterwheel and machinery used to power the old mill will also power the new installation.

HIGHER QUALITY HEAT TREATED **HAMMERS**
Hammers direct from manufacturer of years' experience. Send your specifications or worn hammer. Quantity discounts on hammers and screens. Ask for prices.
SOUTHWEST MILL SUPPLY CO.
P. O. Box 7455 N. Kansas City, Mo.

SIX SUPERIOR GRINDS
PAXCO DEHYDRATED CORN COB MEAL is tailor-made for every feed need, offered in grinds from bulky-coarse to pelleting fine! Eliminate re-grinding and re-handling. Get the best. Write to
PAXTON PROCESSING CO., INC.
P. O. Box 120 Paxton, Ill. Phone 222

Clears $12.00 hourly From $500 investment



10" x 10" Krimper-Kracker with 3 H.P. motor

Missouri community miller reports investment in modern dust-free grain roller returned so quickly he never missed the money.
You, too, can jump in and make a killing now! . . . while others sit idly by with outmoded "grinders" and bellyache about conditions.
Write today for catalog on all 15 sizes.
H. C. DAVIS SONS'
Box FN-185, Bonner Springs, Kansas

-NOW . . . Load or Unload Bulk Feed-

with the PAMCO Back Saver

★ SEMI-TRAILER UNIT (above)
- Power take-off or gasoline engine operated.
- Minimum breakage of pellets.
- All hydraulic unit with all controls on rear corner of box.
- Pamco engineered swivelling and reversing discharge auger makes it possible to load without detaching auger.
- Swivelling discharge auger raised and lowered hydraulically.
- Each compartment can be unloaded individually. Conversion units can be mounted on your grain box.

★ BULK-BAG BOX

for complete information write:
PRODUCTIVE ACRES MFG. COMPANY
KEOTA, IOWA PHONE: ME 63071
OTHER INSTALLATION POINTS: Delphi, Indiana; Cheraw, Colorado, and Portland, Ore.

FOR SALE
- LIVER MEAL, 65% Protein
- ALL BEEF MEAL, 50% and 55% Protein

Fine Ground—Packed 50's or 100's
BRUCE MILLING CO.
229 North James Street
Kansas City 18, Kansas
DRexel 1-7083
For All Your Animal Protein Needs

Mr. Custom Miller!
it's MONEY IN THE BANK When You Deal With PRATER

LEARN WHY: Send for results of actual field survey that proves you can earn greater profits and reduce operating costs with PRATER Blue Streak Equipment.
PRATER PULVERIZER CO. 1537 S. 55th Ct. Chicago 50, Ill.

The Feed Man's Library

Reader Service Department

Feedstuffs

FEEDS AND FEEDING, 22nd Edition

By Frank B. Morrison and Associates

Feeds and Feeding has again been entirely revised, because of the many discoveries made in nutrition and livestock feeding. In this 22nd edition, particular emphasis is placed on the new developments. The numerous experiments are summarized which have dealt with antibiotic, arsonic and surfactant supplements, and with hormones, including stilbestrol. Full information is given concerning requirements of various classes of stock for the vitamins, including B and the unidentified factors. The Appendix Tables are enlarged by 40%, with composition and digestible nutrients of 1,100 feeds **$9.50**

ANIMAL NUTRITION, 4th Edition (1956)

By Leonard A. Maynard

It covers the standard, constantly-needed facts on feeding farm animals, and also the newly discovered facts about how certain acids, minerals, vitamins, etc., can help in raising healthier, more productive animals.
474 pages, 77 illustrations and tables **$7.50**

BEEF CATTLE, 4th Edition

By Roscoe R. Snapp

Covers breeding, feeds, feeding, economic trends, equipment, etc. Includes a report of hundreds of feeding experiments. Has a special chapter on sterility by Dr. Harry Hardenbrooks, Jr., assistant professor of veterinary medicine, University of Illinois. 441 pages **$6.50**

USE OF ANTIBIOTICS IN AGRICULTURE (1956)

Proceedings of the First National Conference

Held under the Auspices of the Agricultural Board and the Agricultural Research Institute, National Academy of Sciences, National Research Council, Oct. 19-21, 1955. Foreword by L. A. Maynard, chapters are sessions, presided over by C. F. Huffman, Damon Catron, H. D. Branion, J. G. Hornfall and W. W. Spink. A collection of scientific papers and panel discussions by leaders in the field **$2.50**

RAISING LIVESTOCK

By Walter H. Peters and G. P. Deyoe

This book provides the owner, manager or caretaker of farm or ranch with easily found, specific suggestions for solving problems confronted in producing, handling and managing livestock, including preparing for market, selecting, feeding, housing, breeding and marketing influences. It tells of the many jobs to be done and exactly how to do them. 519 pages, 240 illustrations..... **$7.50**

DAIRY CATTLE FEEDING and MANAGEMENT, 4th Edition

By H. O. Henderson and Paul M. Reaves

Based on the original work by Carl W. Larson and Fred S. Putney. Expanded 10%, the Fourth Edition adds new chapters on minerals and vitamins, and much recent material on hay-crop silage, grass land farming, dairy cattle health programs, and digestion in the rumen and milk secretion. Designed for use profitably by the student and the practicing dairyman. 614 pages..... **$6.50**

DAIRY CATTLE—Selection, Feeding and Management, 4th Edition (1955)

By W. W. Yapp and W. B. Nevens, Agricultural Experiment Station, University of Illinois

Part 1—Dairy Farming; Part 2—Selection and Breeding; Part 3—Feeding; Part 4—Managing; Part 5—Financial Aspects; Part 6—Milk Secretion; Care and Merchandising; Part 7—Producing Roughages; Part 8—Providing Good Buildings; Part 9—The Future of Dairying. A recognized text of great value to all engaged in dairying, especially to students..... **$4.75**

SWINE SCIENCE, 2nd Edition (1957)

By M. E. Ensminger, Ph.D., State College of Washington, Head Department of Animal Science

A complete yet easily understood reference for swine feeders, breeders and those in auxiliary services to them. Covers history and development of the industry, its distribution, adaptation and future; types and breeds, establishing the herd, meat type breeds, selection and judging, breeding, feeding, grains and high energy feeds, protein, vitamin and milling by-product feeds, pastures, buildings and equipment, health and disease prevention, marketing and slaughter, management and showing. 543 pages, 192 illustrations..... **$5.00**

SWINE FEEDING AND NUTRITION (1957)

By T. J. Cunha, Department of Animal Husbandry and Nutrition, University of Florida

A new text for feeders, teachers of animal husbandry and their classes, county agents, nutritionists and workers in veterinary pharmaceuticals. Dr. Cunha is head of the Department of Animal Husbandry, a member of the Nutrition Committee of the American Society of Animal Production and the Swine Nutrient Requirements Committee of the National Research Council. The book includes reports on the most recent scientific feeding studies on swine.
360 pages, 47 tables, 46 illustrations **$5.00**

SWINE PRODUCTION, 2nd Edition (1956)

By W. E. Carroll and J. L. Krider

A guide to organization, establishment, management, feeding and marketing operations in raising of hogs. 498 pages, 65 illustrations..... **$6.50**

RAISING SWINE—

By George P. Deyoe

A practical swine raiser's handbook. Stock selection, record keeping, feeding, care and handling, marketing techniques and preparing pork for home use. 447 pages, 201 illustrations, 40 tables **$6.95**

THE HANDBOOK OF FEEDSTUFFS (1957)

By Rudolph Seiden and W. H. Pfander

An encyclopedic presentation of production, formulation and medication. Designed to increase feed efficiency, explaining thousands of terms. Valuable to ranches and farms in production of feeds from right crops, utilization of plant as pasture, silage, hay, etc., and as an officially recognized feed product (meal, bran, grit, cake, etc.). Explanations and practical advice on medicated feeds, mineral feedstuffs, trace elements, growth stimulants and chemicals of importance to stockmen and poultry growers. Useful to feed manufacturers, nutritionists, students of animal biology, etc. 600 pages, 175 illustrations, cloth binding **$8.00**

THE STOCKMAN'S HANDBOOK (1956)

By M. E. Ensminger, M.S., M.A., Ph.D.

Intended for stockmen, those who counsel with stockmen and for teachers in animal agriculture. First 120 pages particularly of interest to feed trade, as breeding and feeding of livestock are covered. Other chapters have to do with judging, management, marketing, etc. The 1956 edition is the fourth printing, indicating strong demand for this guide. 598 pages, well illustrated, many tables. A practical handbook **$8.50**

MANAGING FOR GREATER RETURNS in Country Elevator and Retail Farm Supply Businesses

By Richard Phillips, Iowa State College economist

Written as a basic reference book for elevator and farm store managers, this book includes valuable information on over-all planning and management. Some of the topics included are planning for maximum business efficiency, use of an effective accounting system, increasing employee productivity, improving customer relations, improving purchasing, management of credit and operation of custom services. 500 pages **$7.00**

SCIENTIFIC FEEDING OF CHICKENS (1955)

By Dr. H. W. Titus

A small but absolutely authentic and concise treatment of vital information for feeders and feed manufacturers. 43 formulas for diets and mashes, vitamin content of over 60 feedstuffs; what feedstuffs are best, deficiency diseases; also relationship between feed consumption and egg production.
297 pages, hard binding **$4.00**

THE GRAIN TRADE: How It Works (1956)

By James S. Schonberg, Vice President, Uhlmann Grain Company

A comprehensive book on the mechanics of merchandising and trading in cash and grain futures in the U.S. and Canada. Tells of what happens to grain following its purchase from the farmer, how it is graded, stored and conditioned, the establishing of price even before the crop is planted, the role of the university professor in the grain trade. This authoritative book will become the leading reference book on this subject for farmers, county agents, legislators, foreign buyers, government personnel, teachers, etc. **$6.00**

FEEDING POULTRY, 2nd Edition

By Gustave F. Heuser, Professor, New York State College of Agriculture, and the School of Nutrition

Meets the needs of poultry producers, feed dealers and poultry students for the latest authoritative information on how to raise the best poultry by employing modern feeding methods. It evaluates findings on the value of feeds, types of feed to be used and nutritive economy. Deals with feeding and management for various purposes, chicks, breeders and egg producers. 632 pages.... **$7.95**

POULTRY NUTRITION, 4th Edition Revised and Enlarged

By W. Ray Ewing

1,500 pages, 133 illustrations, of practical, factual information for feed manufacturers, feed dealers, hatcherymen, breeders. New chapter on antibiotics, new growth charts, feed formulas for rapid growth..... **$12.50**

POULTRY HUSBANDRY, 3rd Edition

By Morley A. Jull

526 pages, 254 illustrations, covers all aspects of the poultry business, from planning and building poultry plant to preparing poultry products for market. Breeding techniques, feeding procedures, disease control, incubation; it is an "encyclopedia" of poultry raising..... **$6.50**

POULTRY PRODUCTION—

By Leslie E. Card, Ph.D.

Eighth Edition, 416 pages, 216 illustrations and four plates. Deals with broiler production, flock management and marketing, breeding and selection, nutrition, disease control, etc. **$5.00**

HATCHERY OPERATION AND MANAGEMENT

By Ernest F. Funk and M. Richard Irwin

New, 1955; a practical guide to hatchery operation for the experienced and inexperienced. Covers all phases of the business, including advertising, selling, office procedures, labor costs, equipment, chick selection, sexing, etc. 350 pages, well illustrated **$7.50**

SUCCESSFUL POULTRY MANAGEMENT, 2nd Edition

By Morley A. Jull

447 pages, 188 illustrations, based on practical experience, brings practical helps for choosing breeds, increasing broiler and egg production, building range shelters, estimating egg output, buying feed, candling eggs, etc. **$5.75**

KEEPING CHICKENS IN CAGES, 4th Edition (1956)

By Roland C. Hartman, Editor Pacific Poultryman and Dale F. King, Dept. of Poultry Husbandry, Alabama Polytechnic Institute

A thorough revision of this reliable work on cage laying plants. Newly illustrated and broadened in scope with addition of Professor Dale F. King as co-author. More about feeding-results of experiments with caged layers. The importance of protein and energy levels for the highly bred producing stock. 304 pages, 176 illustrations, cloth bound **$5.00**

TURKEY MANAGEMENT, 6th Edition (1955)

By Stanley J. Marsden and J. Holmes Martin

A text on turkey raising and marketing by Stanley J. Marsden, Poultry Husbandman at the U.S. Research Center, Beltsville, Md., and J. Holmes Martin, Head of the Poultry Department, Purdue University. Covers breeding, rearing, feeding, preparation for the market, shows, diseases and their prevention and control. 1,000 pages, 124 illustrations **$7.00**

THE FEED MIXERS HANDBOOK, 2nd Edition (1956)

By Ross M. Sherwood

A text for feed mixers with special reference to the nutritional aspects of feed formulation. A practical handbook for practical men.
208 pages, cloth bound **$3.00**

No C. O. D.'s

ORDER FROM

Reader Service Department
Feedstuffs
P.O. Box 67
Minneapolis 1, Minn.

REGULATION

(Continued from page 8)

ceived in the form of acceptable certificates by CCC.

(d) The financial arrangements provided in paragraphs (b) and (c) of this section shall be made:

(1) Prior to delivery of the feed grain by CCC on purchases which provide for delivery within 5 days following the date of the sale, and,

(2) On all other purchases, not less than 5 days prior to delivery of the feed grain by CCC, unless CCC consents in writing to a different period.

(e) If the purchaser fails to make a financial arrangement acceptable to CCC in accordance with paragraph (d) of this section CCC shall have the right to deem the purchaser in default and may avail itself of any remedy available to an unpaid seller. The purchaser shall be liable to CCC for any loss or damages resulting from such default.

484.124. **Delivery.**

(a) The method, time, and place of delivery will be as specified in the Confirmation of Sale.

(b) If the feed grain is to be delivered instore, delivery shall be accomplished by delivery to the purchaser of endorsed warehouse receipts, or other evidence of title. Delivery may be made by posting warehouse receipts in the mail. In the case of instore delivery the terms of continued storage thereafter shall be for determination between the purchaser and warehouseman. All warehouse charges accruing after delivery and loading out charges shall be for the account of the purchaser.

(c) If the feed grain is to be delivered other than instore, the details thereof shall be specified in the Confirmation of Sale.

(d) Title and risk of loss and damage shall pass to the purchaser upon delivery. All charges thereafter accruing shall be for the account of the purchaser; **Provided,** That if delivery is not made within 30 days after the date of sale, the purchaser shall make cash settlement with CCC for warehouse charges on the feed grain not delivered, at the rate specified in the Confirmation of Sale for the period beginning on the 31st day to and including the final date for delivery specified in the Confirmation of Sale or any written extension thereof; **Provided further,** That the purchaser shall not be responsible for such charges accruing after such 30-day period as a result of delay on the part of CCC in making delivery which is not attributable to the fault of the purchaser.

(e) If on deliveries other than instore the purchaser fails to take delivery of the feed grain within the delivery period specified in the Confirmation of Sale, or any written extension thereof, CCC may at its option deliver the feed grain instore in a warehouse of its choice by delivery of endorsed warehouse receipts, or CCC shall have the right to deem the purchaser in default and the purchaser shall be liable to CCC for any loss or damages resulting from such default.

484.125. **Specifications**

(a) If the feed grain is to be delivered instore, CCC shall deliver warehouse receipts or other evidence of title, representing the kind of feed grain and the quantity, class, grade and/or quality stated in the Confirmation of Sale, and CCC shall have no responsibility in the event of failure of the warehouseman to deliver in accordance with the warehouse receipts or other evidence of title.

(b) If the feed grain is to be delivered other than instore, the kind of feed grain and the quantity, class, grade and/or quality delivered shall be that stated in the Confirmation of Sale. Determination as to the class, grade, and/or quality of the feed grain delivered shall be made on the basis of official inspection at point of delivery, unless otherwise specified in the Confirmation of Sale. The method of determining the quantity delivered shall be as stated in the Confirmation of Sale. If the feed grain delivered is within the quality tolerance, if any, specified in the Confirmation of Sale, such delivery shall be accepted by the purchaser. If the feed grain delivered is not within the quality tolerance, if any, specified in the Confirmation of Sale, the feed grain may be rejected by the purchaser at the time of delivery or accepted subject to an adjustment in price for grade and quality difference in accordance with applicable market premiums and discounts, as determined by CCC. In case of rejection, CCC shall, upon request of the purchaser, replace such rejected quantity. The purchaser may reject any over deliveries in quantity. Overdeliveries in quantity accepted by the purchaser shall be settled for at the contract price unless a different price has been agreed to between CCC and the purchaser. In case of under deliveries a balance certificate shall be issued by CCC or if other financial arrangements were furnished the value of certificates the purchaser is required to surrender will be reduced. In the case of over deliveries the purchaser shall tender cash or certificates to CCC. If the value of feed grain delivered exceeds the value of certificates surrendered by $3 or less, no adjustment will be necessary. If the value of certificates surrendered exceeds the value of feed grain delivered by $3 or less, a balance certificate will not be issued unless requested.

484.126. **Export Requirements.**

(a) The purchaser shall, within 60 days after delivery by CCC of the feed grain to him or within such extension of that period as may for good cause be approved by the Vice President in writing, before or after expiration of such 60 day period, export or cause exportation to an eligible country of the same kind of feed grain, of an equal quantity, as the feed grain delivered by CCC, and from the same coast in the United States as the coast where CCC delivered the feed grain, except that when feed grain is delivered to a Gulf of Mexico port exportation must be from the same port. The feed grain exported shall not be reentered by anyone into the United States, including Alaska, Hawaii, or Puerto Rico, nor shall the purchaser cause the feed grain exported to be transhipped to any country excluded by section 484.150.

(b) The purchaser shall, within 30 days after export, furnish to the CSS Commodity Office evidence of such export, as required in section 484.127. Failure of the purchaser to furnish CCC evidence of export within 90 days after delivery of the feed grain to him, or, in the case of extension of the time for export, within 30 days from the last date specified for export under such extension, shall constitute prima facie evidence of failure to export.

484.127. **Evidence of Export.**

(a) Evidence of export shall be furnished within the period specified above and shall consist of:

(1) If the export is by water, a non-negotiable copy, certified by the purchaser as true and correct, of the applicable on-board ship ocean bill of lading, signed by an agent of the ocean carrier, which shows the weight of the feed grain, the name of the vessel, that the feed grain is destined to an eligible country, the CCC sales contract number, and the P. L. 480, 83rd Congress Purchase Authorization number, if applicable. In the case of bagged feed grain, an ocean bill of lading showing the gross weight of the feed grain and number of bags may be furnished, provided the ocean bill of lading also shows the weight of the bags or the purchaser furnishes an acceptable certification as to the weight of the bags. Where loss, destruction, or damage to the feed grain occurs subsequent to loading aboard the ocean carrier but prior to issuance of on-board ship bill of lading, one copy of a loading tally sheet or acceptable similar document may be substituted for the ocean bill of lading.

(2) If export is by rail or truck, one unauthenticated copy of Shipper's Export Declaration (or photostat copy of an unauthenticated copy) which identifies the shipment(s), the date of clearance into the foreign country, the weight of the feed grain, or, if bagged, the gross weight of the bagged feed grain less the weight of the bags, the CCC sales contract number, and the P. L. 480 Purchase Authorization number, if applicable. The unauthenticated copy, or photostat copy, shall bear one of the following statements certified by the purchaser: "The authenticated copy of this Shipper's Export Declaration was forwarded to (name of banking institution) with my draft for financing under P. A. No. ....." or "The authenticated copy of this Shipper's Export Declaration was forwarded to (name of the CSS Commodity Office) with my application for Feed Grain Export Payment under Acceptance of Offer No. ....."

(3) A copy of an official Export Grain Inspection Certificate issued by an inspector licensed under the U.S. Grain Standards Act.

(4) On bulk feed grain a copy of the official loading weight certificate.

(5) Such additional proof of export as may be required by CCC.

(b) Where exportation of the feed grain has been made by anyone or transshipment made or caused by the purchaser to one or more of the countries or areas identified in section 484.150 (b) (1), (2) or (3), the bills of lading or other pertinent documentary evidence required to be furnished to CCC shall identify the license by number issued by the Bureau of Foreign Commerce, U.S. Department of Commerce, for such movement. With respect to any such movement to Hong Kong under a specified license, the required documentary evidence shall contain a statement by the purchaser that a specified license was not required.

484.128. **Adjusted Sales Price.**

Sales of feed grain under this An...uncement are made at prices below the statutory minimum required under Section 407 of The Agricultural Act of 1949, as amended, for sales for unrestricted use upon condition that payment in certificates is made as provided in section 484.123, **Payment Terms and Financial Arrangements,** and upon the further condition that all provisions of section 484.126, **Export Requirements,** and section 484.127, **Evidence of Export,** are complied with. In the event of failure to comply with such conditions, the sales price with respect to the quantity of feed grain for which certificates have not been received, or the quantity which is not exported, or which is reentered, or transshipped shall be the highest of the following prices in effect on the date of purchase or the date of default as determined by CCC:

(1) CCC's statutory minimum sales price for unrestricted use of the same kind, class, grade and quality of the feed grain as determined by CCC, or (2) the sales price announced by CCC for sale for unrestricted use of the same kind, class, grade and quality of the feed grain, or (3) if no such sales price has been announced, the highest domestic market price at the point where CCC delivered the feed grain as determined by CCC. The total amount of any upward adjustment in sales price arising under this section shall be paid in cash by the purchaser to CCC promptly upon demand. Any such upward adjustment in sales price will be waived to the extent that the Vice President, CCC, or his designated representative, determines that the feed grain has not been exported or has been reentered or transshipped for causes beyond the control, and without the fault or negligence, of the purchaser and that the quantity of feed grain involved in default (other than feed grain transshipped to a country excluded by section 484.150 is, pursuant to written approval of CCC, subsequently exported to an eligible country within the period specified by CCC, or with respect to any feed grain re-entered if as the result of its loss, damage, destruction or deterioration, the physical condition thereof is such that its entry into domestic market channels will not impair CCC's price support operations.

484.129. **Inability to Perform.**

CCC shall not be responsible for damages for any failure to deliver, or delay in delivery of, the feed grain due to any cause beyond the control of and without the fault or negligence of CCC, including, but not restricted to, failure of warehousemen to meet delivery instructions. In case of delay in delivery due to any such causes, CCC shall make delivery to the purchaser as soon as practicable.

MISCELLANEOUS PROVISIONS

484.134. **Covenant Against Contingent Fees**

The exporter warrants that no person or selling agency has been employed or retained to solicit or secure acceptance of any offer under this subpart upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies. For breach or violation of this warranty, CCC shall have the right to annul the contract without liability or in its discretion to require the purchaser to pay, in addition to the contract price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

484.135. **Performance Guarantee**

In addition to the performance guarantee required under section 484.123(c), CCC reserves the right to require the exporter to furnish a cash deposit, performance bond, or performance type letter of credit, acceptable to CCC, to guarantee performance of any of his obligations under this subpart.

484.136. **Good Faith**

If the Vice President, CCC, after affording the exporter an opportunity to present evidence determines that such exporter has not acted in good faith in connection with any transaction under this subpart, such exporter may be denied the right to continue participation in this program or the right to receive payment under this subpart in connection with any transaction previously made under this program, or both. Any such action shall not affect any other right of the Department of Agriculture or the Government.

484.137. **Assignments**

No exporter shall, without the written consent of CCC, assign any right to an export payment under this subpart, except that certificates received by him, may be transferred by endorsement as provided in section 484.116.

484.138. **Records and accounts**

Each exporter shall maintain accurate records showing feed grains exported or to be exported in connection with this program. Such records, accounts, and other documents relating to any transaction in connection with this program shall be available during regular business hours for inspection and audit by authorized employees of the United States Department of Agriculture, and shall be preserved for two years after date of export.

484.139. **Reports**

The exporter shall file such reports as may be required from time to time by the CCC subject to the approval of the Bureau of the Budget.

484.140. **CSS Commodity Offices**

Information concerning this program may be obtained from CSS Commodity Offices listed below:

Director, Commodity Stabilization Service Office, U.S. Department of Agriculture, 500 South Ervay Street, Dallas 1, Texas.

Director, Commodity Stabilization Service Office, U.S. Department of Agriculture, 2101 Howard Street, Evanston, Illinois.

Director, Commodity Stabilization Service Office, U.S. Department of Agriculture, 560 Westport Road, Kansas City 11, Mo.

Director Commodity Stabilization Service Office, U.S. Department of Agriculture, 1006 West Lake Street, Minneapolis 8, Minnesota.

Director, Commodity Stabilization Service Office, U.S. Department of Agriculture, 1218 Southwest Washington Street, Portland 5, Oregon.

484.141. **Officials Not to Benefit**

No member or delegate to Congress, or resident commissioner, shall be admitted to any benefit that may arise from any provision of this program, but this provision shall not be construed to extend to a payment sale made to a corporation for its general benefit.

484.142. **Amendment and Termination**

This offer may be amended or terminated by filing of such amendment or termination with the Federal Register for publication. Any such amendment or termination shall not be applicable to contracts made prior to the time such amendment or termination becomes effective.

484.143. **Right to Waive any Requirement**

The Vice President, CCC, if he deems such action desirable in order to prevent undue hardship, may with respect to any transaction or transactions hereunder waive any requirement of this subpart, if such action is in the best interest of the program. Any such waiver shall be in writing and shall contain a full statement of the reasons therefor.

DEFINITIONS

484.150. **Eligible Country**

"Eligible country" means any destination outside the continental limits of the United States, excluding Alaska, Hawaii or Puerto Rico, and also excluding (1) any country or area listed as Sub-Group A of Group R of the Comprehensive Export Schedule issued by the Bureau of Foreign Commerce, U.S. Department of Commerce, unless a license for shipment or transshipment thereto has been obtained from such Bureau; (2) Macao unless specific license for shipment or transshipment thereto has been obtained from the Bureau of Foreign Commerce, U.S. Department of Commerce; or (3) Hong Kong in the case of any commodity for which a specific license is required by regulations of the U.S. Department of Commerce under the Export Control Act of 1949, unless such specific license for shipment or transshipment thereto has been obtained from the Bureau of Foreign Commerce, U.S. Department of Commerce.

484.151. **Export**

"Export" means a shipment from the continental United States destined to an eligible country. Feed grain shall be deemed to have been exported on the date which appears on the applicable on-board ocean carrier bill of lading, or, if shipment to the eligible country is by truck or rail, the date the shipment clears United States Customs, or the latest date appearing on the Loading Tally Sheet or similar documents where loss, destruction or damage occurs subsequent to loading aboard ocean carrier but prior to issuance of on-board bill of lading.

484.152. **Exporter**

"Exporter" means an individual, corporation, partnership, association or other business entity, which is regularly engaged in the business of buying and selling feed grain for export and for this purpose maintains a bona fide business office in the continental United States, and therein has a person, principal, or resident agent upon whom service of process may be had.

484.153. **Feed Grains**

"Feed Grains" mean barley, corn, grain sorghums, oats and rye as defined in the Official Grain Standards of the United States and produced in the United States, and when specifically approved by the Director, Grain Division, CSS, will also include crushed, cracked, ground or otherwise similarly processed forms of such grains, provided all of the ingredients of the whole grain are included. Feed grains shall not include mixtures of barley, corn, grain sorghums, oats and rye. The net quantity of feed grains exported means the quantity determined by deducting from the total weight of the feed grain exported, the weight of any dockage indicated on the inspection certificate issued at the time of loading for export. The following quantities shall be deemed to constitute one bushel: 56 pounds of corn, 32 pounds of oats, 48 pounds of barley and 56 pounds of rye.

484.154. **United States**

"United States" unless otherwise qualified means the Continental United States.

484.155. **Vice President**

"Vice President" means the Executive Vice President of the Commodity Credit Corporation or his designee.

Effective Date

This program is effective on May 12, 1958, with respect to corn, and on July 1, 1958, with respect to other grains covered thereby.

Note: The record keeping and reporting requirements contained herein have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

Issued this 7th day of May, 1958.

(S) WALTER C. BERGER
Executive Vice President
Commodity Credit Corporation

APPENDIX

NOTICE TO EXPORTERS

(Revision of September 30, 1957)

The Department of Commerce, Bureau of Foreign Commerce (BFC), pursuant to regulations under the Export Control Act of 1949, prohibits the exportation or re-exportation by anyone of any commodities to Macao, the Soviet Bloc, or Communist-controlled areas of the Far East, including Communist China, North Korea and Communist-controlled areas of Vietnam and Laos, except under validated license issued by the U.S. Department of Commerce, Bureau of Foreign Commerce. A validated license is also required for shipment to Hong Kong unless the commodity is included on the general license GHK list.

These regulations further require that exporters, in or in connection with their contracts with foreign purchasers, where the contract involves $10,000 or more and exportation is to be made to a Group R country, obtain from the foreign purchaser a written acknowledgement of his understanding of (1) U.S. Commerce Department prohibitions (Comprehensive Export Schedule, Sections 371.4 and 371.8) against sales or resale for re-export of said commodities, or any part thereof, without prior Commerce Department authorization, to Macao, Hong Kong, the Soviet Bloc, a Communist-controlled area in the Far East including Communist China, North Korea and Communist-controlled areas of Vietnam and Laos, and (2) the sanction of denial of future U.S. export privileges that may be imposed for violation of the Commerce Department regulations. Exporters who have a continuing and regular relationship with a foreign purchaser may obtain a blanket acknowledgement from such purchaser covering all transactions involving surplus agricultural commodities and manufactures thereof purchased from CCC or subsidized for export by that agency. Where commodities are to be exported by a party other than the original purchaser of the commodities from the CCC the original purchaser should inform the exporter in writing of the requirement for obtaining the signed acknowledgement from the foreign purchaser.

For all exportations, one of the destination control statements specified in BFC Regulation (Comprehensive Export Schedule Section 379.10 (c)) is required to be placed on all copies of the shipper's export declaration, all copies of the bill of lading, and all copies of the commercial invoices. For additional information as to which destination control statement to use, the exporter should communicate with the Bureau of Foreign Commerce or one of the Field Offices of the Department of Commerce.

Cedar Rapids Feed & Grain Club to Meet

CEDAR RAPIDS, IOWA — The next monthly meeting of the Cedar Rapids Feed & Grain Club will be May 14, 6.30 p.m. at the Elks Club in Cedar Rapids.

Robert M. Sproat, general partner of Lamson Brothers & Co., will discuss "Grain Futures and Securities." All feed men are invited, said John M. Ely, Jr., The Quaker Oats Co., program chairman.

POULTRY BILL

(Continued from page 1)

In its original form, the bill called for a mandatory law and was opposed by the California Hay, Grain & Feed Dealers Assn. A levy of 20¢ a ton on all poultry feeds, set up originally in the measure, was amended to call for financing by producers with collections being made at any practical point of production or processing.

Another amendment proposed by the CHG&FDA giving the council authority to definitely exempt subquality poultry products from carrying the "California seal" was turned down by a senate committee. In its approved form, the bill provides only that the council may recommend exemptions from the program.

LEASE FEED MILL

LE CENTER, MINN.—The Le Center Feed Mill has been leased to Louis and Edward Prososki.

THE FEED MARKETS

★ ★ ★ ★

Demand — Supply — Trends — Prices

Quotations on feed ingredients shown in these and adjoining columns are wholesale prices, per ton, bagged, for prompt delivery, unless otherwise noted. They are the latest quotations available from Feedstuffs correspondents and are not necessarily those in effect on date of publication. The prices represent fair average trading values and do not necessarily represent extreme low or high levels at which individual sales might have occurred. A descriptive summary of supply and demand factors prevalent in the feed market appears on page 2.

A AND D FEEDING OIL

Boston: Demand light; supply good; 600 D, 1,500 A 18¢ lb.; 300 D, 2,250 A 18½¢; 300 D, 1,500 A 17¢; 300 D, 750 A 15½¢, all f.o.b. eastern shipping points.

Chicago: Demand fair; supply adequate; straight A feeding oil with 10,000 units vitamin A per gram 7½@8½¢ a million units of vitamin A, l.c.l., packed in 55 gal. drums, f.o.b. Chicago, drums included.

New York: Trend steady; price per lb. in 55-gal. drums (413 to 420 lb.): 300 ICU, 750 A 13½@15½¢, 1,500 A 15½@17¢, 2,250 A 17½@20¢, 3,000 A 19½@21¢; 600 ICU, 1,500 A 16@18¢, 2,250 A 18@19½¢, 3,000 A 20@21¢; f.o.b. Massachusetts, New York or Pennsylvania.

Minneapolis: 10,000 A 35¢ lb.; 300 D, 2,250 A 21½¢ lb.; 300 D, 1,500 A 20½¢ lb.; 300 D, 75 A 18½¢ lb.

Seattle: Demand slow; trend steady; supply good; 300 D, 2,250 A 23¢ lb.; 300 D, 1,500 A 19¢ lb.; 300 D, 750 A 17¢ lb.; all ex-warehouse, drums included.

Denver: Demand fair; trend unchanged; supply ample; 2,250 A, 300 D 22½¢.

ALFALFA MEAL

Boston: Demand steady; supply ample; dehydrated, 17% $57.

Philadelphia: Demand dull; supply light; 17% dehydrated $59.50.

Chicago: Demand slow; supply adequate; 17% dehydrated, with 100,000 units vitamin A $43@43.50; 17% with no A guaranteed $40.50@41.

St. Louis: Demand slow; trend steady; supply ample; 13% fine suncured $40; dehydrated, 17%, 100,000 units A $45.

Omaha: Demand slow; supply limited; 17% dehydrated, 100,000 A, bulk pellets $35; 17% 100,000 A, sacked meal $40; non-A guarantee $35.

Los Angeles: Demand slow; trend firmer; supply ample; dehydrated pellet meal, 17% protein, 100,000 A $50; dehydrated meal, 17% protein, 100,000 A $48; suncured crumbles, 15% protein $46@47; suncured meal, 15% protein $44@45.

Cincinnati: Demand fair; trend steady; supply adequate; 17% dehydrated, 100,000 vitamin A $52.40.

Ft. Worth: Demand improved; supply sufficient; new crop 20% protein, Texas dehydrated $43, nominally priced, f.o.b. plants; Kansas dehydrated, 17%, 100,000 A $51.05 by rail; suncured No. 1 13% protein, ¼-in. grind, truck $38.

Portland: Demand slow; supply ample; trend unchanged; suncured $38; dehydrated $51; f.o.b. California.

Minneapolis: Weaker trend; fair demand; adequate supplies; new crop meal, 17%, 100,000 units vitamin A $45; 17% reground pellets $46.50; granules and oil treated, bulk $45.50.

Kansas City: Demand fair; trend steady; supply adequate over-all, tight in some areas, new production is very limited because of rainy weather, quality good; dehydrated alfalfa meal with 17% protein and 100,000 units vitamin A guaranteed on arrival $39@42, sacked; 18% protein 125,000 A $44, sacked; 17% 100,000 pellets $35@36, bulk; non-guaranteed A meal, nominally $35, sacked, but very little on market; suncured demand is slow but supplies are very tight because hay under roof is nearly gone and it has been too wet to grind from stacks, No. 1 fine ground $34.50@35, No. 1 ¼-in. $33.50, No. 2 ¼-in. $29, sacked.

Buffalo: Demand fair; trend steady; supply adequate; $59.50, sacked, Boston.

Seattle: Demand slow; trend steady; supply good; 15% protein suncured $40, delivered, truck loads; 136,000 A unit dehydrated $67, delivered truck loads.

New Orleans: Demand fair; trend steady; supply ample; dehydrated 17%, vitamin A guaranteed $51@51.50; pellets, bulk $47@48.

Memphis: Demand poor; trend lower; supply ample; dehydrated, 17% protein, guaranteed 100,000 units vitamin A $45.

Denver: Demand fair; trend steady; supply ample; 100,000 A, 17% $42.

ANIMAL FAT (STABILIZED)

San Francisco: Demand fair; supply ample; bleachable fancy 8½¢ lb.; yellow grease 7⅝¢ lb.

Chicago: Demand and supply fair; bleachable fancy tallow, tank truck or carlots 7⅝¢ lb.; yellow grease 7@7⅛¢ lb.

Louisville: Demand slow; trend weak; supply good; fat buyers holding back, prices off ⅛¢ lb. on all grades; bleachable white 7⅛¢ lb., white tallow 8¢ lb., yellow grease 6¾¢ lb.

Ft. Worth: Demand fair; supply adequate; prime tallow, tank cars 8¢ lb.; drums 9½¢ lb., f.o.b. north Texas packing plants with returnable drums.

Kansas City: Demand fair to good; trend steady; supply tight; 7⅜@8¢ lb. for bleachable fancy tallow.

St. Paul: Steady trend; good demand; tight supply; 7⅝¢ lb., f.o.b. producers' plants for bleachable fancy tallow.

Denver: Demand fair; trend steady; supply ample; bleachable fancy tallow 7⅝¢ lb.

New Orleans: Demand good; trend steady; supply adequate; 8⅛@8½¢ lb. in tank cars.

BARLEY FEED

Boston: Demand slow; supply light; $45.

Philadelphia: Demand slow; supply fair; pulverized $45.75.

Ogden: Supply normal; rolled $41@45; whole barley $34@39.

Chicago: Demand good; supply light; $38.

Baltimore: Demand good; supply light; $49.

Portland: Demand good; supply ample; trend unchanged; rolled $59, ground $57.

Los Angeles: Demand fair; trend steady; supply ample; standard rolled $2.98 cwt., sacked; standard ground $2.98 cwt., sacked.

San Francisco: Demand fair; supply ample; rolled $59; ground $58.

Seattle: Demand fair; trend firmer; supply good; whole barley $57, ground barley $57, rolled barley $59, all ex-warehouse, l.c.l., sacked.

Milwaukee: Demand good; supply fair; needles 93¢@$1.15 cwt.; ground $27.

New Orleans: Demand fair; trend firmer; supply adequate; $68@69.

BENTONITE (SODIUM)

Chicago: Demand steady; supply adequate; f.o.b. Wyoming and South Dakota shipping points; granular 30 mesh $16.50; fine granular, 80 to 100 mesh $13.75; powder, 200 mesh $13.50; f.o.b. Belle Fourche, S.D., minimum 30-ton carlots; 80 granular $13.50 net; 200 mesh fine $13.25 net.

Cincinnati: Demand steady; supply adequate; f.o.b. Cincinnati, minimum 30-ton carlots: 80 granular $30.21; 200 mesh fine $29.96.

Denver: Demand fair; trend unchanged; supply ample; 200 mesh $13.50, f.o.b. Wyoming and South Dakota shipping points.

BLOOD FLOUR

Louisville: Demand fair; trend steady; supply ample; $100@110.

BLOOD MEAL

Los Angeles: Demand and trend steady; supply limited; $7.50 a unit of ammonia.

San Francisco: Demand good; supply tight; $7.25 a unit of ammonia.

Louisville: Demand fair; trend steady; supply normal; $100@110.

Ogden: Supply normal; $125 in 100-lb. bags, f.o.b. Ogden.

Chicago: Demand fair; supply adequate; $145@155, guaranteed 80% protein.

Portland: Demand good; supply limited; trend higher; $120.

Denver: Demand limited; trend weak; supply ample; $70.7.50.

New Orleans: Demand slow; trend steady; supply adequate; $108@110.

BONE MEAL (STEAMED)

Los Angeles: Demand slow; trend unchanged; supply adequate; imported $66.50 in 20-ton lots.

Cincinnati: Demand fair; trend steady; supply ample; $95, sacked, f.o.b. Cincinnati.

San Francisco: Demand good; supply ample; $75.

Chicago: Demand good; supply tight; $80.

Ft. Worth: Demand fair; supply adequate; $85, sacked, f.o.b. Ft. Worth, local manufacture.

Louisville: Demand good; trend steady; supply normal; $85@90.

Boston: Demand and supply steady; $87.

Portland: Demand good; supply ample; trend unchanged; $95.

Seattle: Demand and trend steady; supply good; $85, ex-dock, truck lots.

Buffalo: Demand good; trend steady; supply ample; $90.

Denver: Demand fair; trend unchanged; supply ample; $75, f.o.b. West Coast.

New Orleans: Demand fair; trend steady; supply adequate; $85@86.50.

BREWERS DRIED GRAINS

Los Angeles: Demand and trend steady; supply tight; $49 bulk, $53 sacked.

Philadelphia: Demand slow; supply light; $58.

Cincinnati: Demand poor; trend steady; supply limited; $53.

St. Louis: Demand good; trend steady; supply short; $49.

San Francisco: Demand fair; supply ample; $54.

Chicago: Demand fair; supply adequate; 26% $47.

Boston: Demand and supply steady; 26% $58; 22% $52.

Louisville: Demand fair; trend firm; supply ample; $46.

Ft. Worth: Demand slow; supply moderate; 26% $51.15, delivered Ft. Worth.

Milwaukee: Demand good; supply fair; $47.50.

Buffalo: Demand and supply fair; trend steady; $54, bulk, Boston.

New Orleans: Demand slow; trend steady; supply sufficient; 26% $51.15@52.

BREWERS DRIED YEAST

Louisville: Demand slow; trend steady; supply ample; 10@10½¢ lb.

Boston: Demand and supply steady; 11¢ lb.

Chicago: Demand good; supply limited; 10@11½¢ lb. in carlots; 10¾@12½¢ lb., l.c.l.

Portland: Demand good; supply ample; trend unchanged; 8½¢ lb.

Los Angeles: Demand and trend steady; supply tight; 10¢ lb. in 5-ton lots; 11¢ lb. in less than 5-ton lots.

Omaha: Demand good; supply ample; 11½¢ lb.

San Francisco: Demand fair; supply good; 10¢ lb.

Seattle: Demand slow; trend steady; supply ample; $12 cwt.

St. Louis: Demand good; supply limited; 10¢ lb. in carlots; 11¢ lb. in ton lots; 12¢ lb. in less than ton lots.

Cincinnati: Carlots 10¢ lb.; 5-ton lots 11¢ lb.; ton lots 11½¢ lb.

Pittsburgh: Carlots 10¢ lb.; 5-ton lots 11¢ lb.; ton lots 11½¢ lb.

New Orleans: Carlots 10¢ lb.; 5-ton lots 11¢ lb.; ton lots 11½¢ lb.

New York: Carlots 9½¢ lb.; 10-ton lots 10¢ lb.; 5-ton lots 10½¢ lb.; ton lots 11¢ lb., f.o.b. New Jersey.

Milwaukee: Demand good; supply limited; 10½@11½¢ lb. in carlots; 10¾@12½¢ lb., l.c.l.

Buffalo: Demand good; trend steady; supply ample; $10.25 cwt.

Denver: Demand fair; trend unchanged; supply ample; $10 cwt.

BUTTERMILK-CONDENSED

San Francisco: Demand fair; supply good; $5 cwt.

Boston: Demand slow; supply light; 3½¢ lb.

Los Angeles: Demand and trend unchanged; supply adequate; 5¼¢ lb. in 100-lb. lots; 4¾¢ lb. in 500-lb. lots.

Philadelphia: Demand dull; supply light; $4.25 cwt.

Wichita: Demand good; supply insufficient; $2.75, 100-lb. barrel.

Ogden: Supply normal; $4.40, 100-lb. drum.

Chicago: Demand slow; supply adequate; $3.25@3.50 cwt. in carlots.

Minneapolis: Steady trend; fair demand; ample supply; 3½¢ lb.

New Orleans: Demand slow; trend steady; supply sufficient; 4@4¼¢ lb. in 500-lb. lots.

CALCITE CRYSTALS AND FLOUR

(All prices net, including freight and tax)

New York: Crystals $15.30, flour $10.30.

Buffalo: Crystals $16.16, flour $11.16.

Toledo: Crystals $18.06, flour $13.06.

Boston: Crystals $16.69, flour $11.69.

Limecrest, N.J.: Crystals $10.50, flour $5.50.

CALCIUM CARBONATE

Chicago: Demand steady; supply adequate; fine grind, plain $9.67; bulk, in hopper cars, fine grind $7.67; bulk, in boxcars $8.17; granular grind $1 premium.

Los Angeles: Demand and trend steady; supply ample; $10.25 cwt.

Cincinnati: Demand fair; trend steady; supply adequate; $8@9 cwt.

Seattle: Demand and trend steady; supply good; $14, ex-warehouse, truck lots.

Minneapolis: Fine grind; 50-lb. bag $12.25, 100-lb. bag $11.50; bulk, boxcar $10; bulk, hopper $9.50; coarse grind $1 premium, delivered Minneapolis.

CHARCOAL

Cincinnati: Demand good; trend steady; supply adequate; briquets $120, 25-lb. bags, f.o.b. warehouse, Cincinnati.

Los Angeles: Demand slow; trend steady; supply ample; hardwood poultry $156 sacked in less than ton lots; $144.50 sacked in ton lots.

San Francisco: Demand steady; supply ample; $141.

Boston: Demand and supply light; $95, nominal.

Chicago: Demand quiet; supply adequate; poultry charcoal $106 in 50-lb. multiwalls.

COCONUT MEAL

Portland: Demand slow; supply ample; trend unchanged; $59.

Los Angeles: Demand fair; trend easier; supply ample; $60@61.

San Francisco: Demand fair; supply ample; solvent $53; expeller $58.

Seattle: Demand and trend steady; supply ample; $62, ex-dock, truck lots.

COD LIVER OIL (FORTIFIED)

Boston: Demand fair; supply good; 600 D, 2,250 A 21¢ lb.; 300 D, 2,250 A 20¢ lb.; 300 D, 1,500 A 17½¢ lb.; all f.o.b. eastern shipping points.

New York: Trend steady; price per lb. in 55-gal. drums (413 to 420 lb.): 300 ICU, 750 A 14½@15½¢, 1,500 A 16½@20¢, 2,250 A 18½@21¢, 3,000 A 21½@23¢; 600 ICU, 1,500 A 17½@19½¢, 2,250 A 20@22¢, 3,000 A 22@23¢; f.o.b. Massachusetts, New York or Pennsylvania.

CONDENSED FISH SOLUBLES

Boston: Demand good; supply short; 5¢ lb., nominal.

Los Angeles: Demand and trend steady; supply limited; 5¼¢ lb.

New York: Demand good; trend steady; supply fair; 5@5¼¢ lb., f.o.b. eastern shore.

Denver: Demand fair; trend steady; supply ample; $192.25, dried.

New Orleans: Demand good; trend dull; supply light; 50% solids $97.50, f.o.b. Louisiana points.

Atlanta: Demand fair; trend steady; supply limited; 41% $71, sacked, immediate.

Denver: Demand fair; trend steady; supply ample; 2% fat, 43% $61, rail.

Memphis: Demand dull; trend steady; supply limited; prime 41% protein, old process $63, sacked; new process, 41% solvent $60, sacked.

New Orleans: Demand good; trend firmer; supply ample; 47% $78@81.50.

CORN GLUTEN FEED AND MEAL

(All quotations for all cities are sacked basis, bulk basis $5 less)

Minneapolis: Feed $56.80, meal $86.80.
Atlanta: Feed $62.98, meal $92.98.
Birmingham: Feed $61.64, meal $91.64.
Boston: Feed $61.84, meal $91.84.
Chicago: Feed $50, meal $80.
Cleveland: Feed $58.14, meal $88.14.
Denver: Feed $60.51, meal $90.51.
Ft. Worth: Feed $58.96, meal $88.96.
Indianapolis: Feed $55.36, meal $85.36.
Kansas City: Feed $50, meal $80.
Louisville: Feed $57.21, meal $87.21.
New Orleans: Feed $60.20, meal $90.20.
New York: Feed $61.43, meal $91.43.
Norfolk: Feed $60.71, meal $90.71.
Philadelphia: Feed $61.02, meal $91.02.
Pittsburgh: Feed $58.96, meal $88.96.
St. Louis: Feed $50, meal $80.

CORN OIL MEAL

Cincinnati: Demand fair; trend steady; supply fair; $59.18.

Louisville: Demand slow; trend steady; supply light; $59.68.

COTTONSEED OIL MEAL

Louisville: Demand fair; trend strong; supply ample; old process $73.50; new process $72.50.

Ogden: Supply average; 41% $65@70.

Wichita: Demand slow; supply ample; 41% old process $67.

Philadelphia: Demand slow; supply light; $82.50.

Omaha: Demand steady; supply good; 41% solvent, sacked $60.

St. Louis: Demand slow; trend steady; supply limited; $66.

Los Angeles: Demand slow; trend steady; supply adequate; local production, 40% protein $55.

Cincinnati: Demand fair; trend steady to higher; supply fair; solvent $73.50; old process $75.50.

San Francisco: Demand good; supply ample; expeller $53; solvent $51.

Boston: Demand fair; supply light; $82.85.

Ft. Worth: Demand fair; supply sufficient; carlots, 41% old process $58@58.50, f.o.b. central Texas and Ft. Worth area; solvent 41% low gossypol $56@57, delivered Ft. Worth; pellets $2 additional; cottonseed hulls $15, f.o.b. Ft. Worth.

Chicago: Demand slow; supply adequate; hydraulic $74.50@75; solvent $73.50@74.

Portland: Demand good; supply ample; trend unchanged; truck $61; rail $70.

Kansas City: Demand slow; trend unchanged; supply adequate, coming from Texas; old process meal $67, sacked, delivered Kansas City; solvent meal $67.

Seattle: Demand fair; trend firmer; supply good; $63, delivered, truck lots, 41% expeller process.

Buffalo: Demand poor; trend steady to lower; supply adequate; $52.50, sacked, Boston.

CURACAO PHOSPHATE

New York: Trend steady; ground Curacao phosphate in 100-lb. bags $48 ton, f.o.b. cars or trucks, New Orleans, Jacksonville, Fla., or Philadelphia.

D ACTIVATED PLANT STEROL, POWDERED

Chicago: Demand good; supply moderate; 4,000,000 U.S.P. units per lb., 15¢ lb. in ton lots; less than ton lots 17¢ lb.; 12,000,000 units per lb., 5 tons to a carload 28¢ lb.; ton lots and less 30¢ lb.

D ACTIVATED ANIMAL STEROL, POWDERED

Cincinnati: Demand fair; trend steady; supply ample; 1,500 ICU 11@12¢ lb.; 3,000 ICU 18¢ lb., warehouse.

New York: Trend steady; price per lb. in 50- and 100-lb. bags or 100-lb. drums: 1,500 ICU 8@12¢ bagged, 12@13¢ drums; 3,000 ICU 13@17¢ bagged, 17@18¢ drums; f.o.b. or delivered basis Pennsylvania, Delaware or New York.

Kansas City: Demand fair; trend steady; supply ample; 1,500 ICU 9½@10¢ lb.; 3,000 ICU 11½@12¢ lb., ton lots or larger.

ONE ISN'T ENOUGH!
2 NEW PLANTS* BEING BUILT TO MEET BIG DEMAND!
MERRY MIXER
DE-HY ALFALFA
GREENULES
*AT NEBRASKA CITY, NEBR. AND GUNTERSVILLE, ALA.
CONSOLIDATED BLENDERS, INC.
FREMONT, NEBR., PHONE PARK 1-9000

DEFLUORINATED PHOSPHATE

Tupelo, Miss.: Minimum phosphorus 13%, minimum calcium 31%, maximum fluorine .12%, $51 net ton, f.o.b. Tupelo in 100-lb. multiwall bags, $48 in bulk.

Wales, Tenn.: Minimum phosphorus 18%, minimum calcium 33%, maximum calcium 36%, maximum fluorine .18% $69.12 net ton, f.o.b. Wales, in 100-lb. multiwall bags, $3 less in bulk.

Houston: Minimum phosphorus 19%, minimum calcium 32%, maximum calcium 36%, maximum fluorine .19% $69.50 net ton, f.o.b. Houston, 100-lb. multiwall paper bags; $66.50 in bulk.

Coronet, Fla.: Minimum phosphorus 17%, minimum calcium 34%, maximum fluorine .17%, carload $60, truckload $60.75, net ton, f.o.b. Coronet in 100-lb. multiwall bags, $57 and $57.75 in bulk.

Cincinnati: 13% phosphorus $51, sacked; 13% phosphorus $64.98, sacked, f.o.b. Cincinnati.

DICALCIUM PHOSPHATE

Texas City, Texas: 18.5% minimum phosphorus, 25% minimum calcium, 28% maximum, 0.11% maximum fluorine, granular $77.70 net ton, f.o.b. Texas City in 100-lb. multiwall bags; bulk, boxcars and hoppers, $3 net ton less than bagged material.

Columbia, Tenn.: Minimum phosphorus 18½%, minimum 28% calcium, maximum .01% fluorine guaranteed $83.25, f.o.b. Columbia, in 100-lb. multiwall bags; freight equalized with nearest producing point, carload basis; bulk $3 ton less.

Chicago: Stock food grade, 18.5% phosphorus, 30,000 lb. or more $33.25 net ton in 100-lb. papers, basis Chicago Heights, Ill., or Nashville, Tenn.; less than 30,000 lb. $93.25; 21% phosphorus, 20,000 lb. or more, $94.50, basis Chicago Heights and Nashville; less than 20,000 lb. $104.50; bulk boxcars or hoppers $3 net ton less than bagged material.

Cincinnati: 18½% phosphorus $92@93.

Portland: Demand good; supply ample; trend unchanged; $115.

Bonnie, Fla.: Minimum phosphorus 18½%, granular $83.25; freight equalized with closest producing point, carload basis.

Minneapolis: 18.5% phosphorus, 24% calcium granular or fine ground $94.10, delivered; $3 less in bulk.

Trenton, Mich.: Minimum phosphorus 18½%, maximum fluorine .03% guaranteed $83.25, f.o.b. Trenton in 100-lb. multiwalls; minimum phosphorus 21%, maximum fluorine .03% guaranteed $94.50, f.o.b. Trenton in 100-lb. multiwall bags.

Denver: Demand fair; trend unchanged; supply ample; 18.5% $77.70, f.o.b. Texas City.

DISTILLERS DRIED GRAINS

Boston: Demand active; supply very tight; both quotations nominal: light $64, dark $65.

Louisville: Demand good; trend strong; supply light; production is becoming light, some distillers have made their year's quota and are closing down; bourbon grains, light $55@58, dark $56@59, solubles, unchanged $77.

Philadelphia: Demand slow; supply light; $65.

Cincinnati: Demand poor; trend steady; supply limited; $61, by truck $53.

San Francisco: Demand fair; supply ample; solubles $85.

Seattle: Demand fair; trend steady; supply ample; $63, delivered, truck lots.

"Delivery is always F-A-S-T when you order from BURROWS Catalog!"
BURROWS
BURROWS EQUIPMENT CO.
1316 Sherman Ave. Evanston, Ill.

Buffalo: Demand good; trend higher; supply poor; $65, bulk, Boston.

DRIED BEET PULP

Portland: Demand good; supply ample; trend unchanged; $50.

San Francisco: Demand good; supply fair; $43.02.

Boston: Demand and supply fair; $66.

Ogden: Supply normal; $38@42.

Ft. Worth: Demand slow; supply sufficient; carlots, 50-lb. papers $62.50, delivered Ft. Worth.

Milwaukee: Demand good; supply poor; plain $57, molasses $56, nominal.

Seattle: Demand slow; trend steady; supply good; $45, delivered, carlots.

Los Angeles: Demand steady; trend firmer; supply adequate; molasses, new crop $48.25.

Buffalo: Demand fair; trend higher; supply poor; $67, sacked, Boston.

Atlanta: Demand fair; trend steady; supply limited; $68.50, sacked, immediate.

New Orleans: Demand fair; trend steady; supply adequate; $52@55.

DRIED BUTTERMILK

Boston: Demand good; supply tight; 11¢ lb.

Los Angeles: Demand slow; trend unchanged; supply adequate; 11¢ lb.

San Francisco: Demand fair; supply ample; 11¢ lb.

Louisville: Demand slow; trend strong; supply ample; 11½@12¢ lb.

Ogden: Supply normal; $7.25, 100-lb. bag.

Chicago: Demand good; supply scarce; medium acid $10.25@10.50; sweet cream, none available.

Milwaukee: Demand and supply fair; $10.50 cwt.

Buffalo: Demand good; trend steady; supply liberal; $10.95 cwt.

New Orleans: Demand good; trend steady to stronger; supply tight; $8@10 cwt.

DRIED CITRUS PULP

Boston: Demand fair; supply spotty; $45@47.50, f.o.b. Florida.

Los Angeles: Demand good; trend steady; supply limited; orange pulp: $39 bulk, $44 sacked; lemon pulp: $37 bulk, $42 sacked.

San Francisco: Demand good; supply fair; meal $52.

Buffalo: Demand and supply fair; trend steady; $45, f.o.b. Florida points.

Atlanta: Demand good; trend strong; supply limited; $56.50, sacked, immediate; meal $49, sacked, immediate.

New Orleans: Demand poor; trend steady to higher; supply sufficient; $44@45, f.o.b. Florida points.

DRIED SKIM MILK

Portland: Demand good; supply ample; trend unchanged; 13¢ lb.

Los Angeles: Demand fair; trend unchanged; supply adequate; 14¢ lb. in less than ton lots; 13¾¢ lb. in ton lots.

Cincinnati: Demand fair; trend steady; supply adequate; 10¼@11¢ lb.

San Francisco: Demand and supply fair; 13¼¢ lb.

Louisville: Demand fair; trend stronger; supply normal; 12@12½¢ lb.

Ogden: Supply normal; $15.15, 100-lb. drum.

Philadelphia: Demand slow; supply light; $12.50 cwt.

Boston: Demand and supply fair; 11¢ lb.

Chicago: Demand improved; supply tightening; $10.50@10.75 cwt. in carlots.

Milwaukee: Demand and supply fair; $11.50 cwt.

Minneapolis: Firm trend; supply scarce; good demand; $10.75@11 cwt.

New Orleans: Demand fair; trend steady; supply light; $10.85@11.50 cwt.

Buffalo: Demand good; trend steady; supply ample; spray $10.65 cwt., roller $11.50 cwt.

DRIED WHEY

Chicago: Demand good; supply light; $5.10 cwt., f.o.b. plant.

Cincinnati: Demand fair; trend steady; supply adequate; $5.35 cwt., sweet $5.75 cwt.

Los Angeles: Demand and trend steady; supply adequate; $5.75 cwt. in carloads; $6 cwt. in l.c.l.

San Francisco: Demand steady; supply good; $5.50 cwt.

Louisville: Demand fair; trend steady; supply normal; 6@6½¢ lb.

Philadelphia: Demand slow; supply light; $6.25 cwt.

Boston: Demand steady; supply ample; $5.75 cwt.

Ft. Worth: Demand fair; supply adequate; carlots, standard $6 cwt., sacked, delivered Ft. Worth or any Texas points or in ton lots, f.o.b. warehouse Ft. Worth.

Portland: Demand good; supply ample; trend unchanged; $6.05 cwt.

Ogden: Supply normal; $6.90, 100-lb. bag.

Minneapolis: Steady trend; fair demand; adequate supply; $5.40@5.60; other sources quote $5.10, f.o.b. producers' plants for both regular and partially delactosed.

Seattle: Demand and trend steady; supply good; $6.25 cwt., ex-warehouse, l.c.l.

Kansas City: Demand and supply fair; trend steady; $5.10 producers' points for both regular and partially delactosed.

New Orleans: Demand fair; trend steady; supply adequate; $6@6.25 cwt.

Denver: Demand fair; trend unchanged; supply ample; $7 cwt., $6.10 carlots.

FEATHER MEAL (HYDROLYZED)

Ft. Worth: Demand good; supply very limited; 85 to 87% protein $92.50, f.o.b. trucks, north Texas plants.

Los Angeles: Demand good; trend firm; supply limited; $1.25 a unit of protein.

Boston: Demand steady; supply poor; $86, f.o.b. eastern shipping points.

Atlanta: Demand good; trend steady; supply limited; $94, sacked, f.o.b. Alabama and Georgia producing points, immediate.

FISH MEAL

Los Angeles: Demand and trend steady; supply limited; local production, 60% protein $2.37½ a unit protein.

Portland: Demand good; supply limited; trend unchanged; $2.40 a unit protein.

Ft. Worth: Demand fair; limited offerings for nearby; Peruvian 65% protein $141, ex-dock Houston, immediate delivery; 60% Angola $141, immediate.

Louisville: Demand slow; trend steady; supply ample; $140@150.

Boston: Demand steady; supply fair; $133@135.

Chicago: Demand quiet; supply very limited; eastern menhaden fish meal, 60% protein $135@140; western blended, 60% protein, no offerings; Gulf $135@140; imported $141@143; Northwest herring-salmon blend, no offerings; Canadian herring, 73% protein $2.40 a unit of protein; 60% blended $164@167, delivered Midwest points.

Ogden: Supply normal; $2.20 a unit, f.o.b. Coast; 65%, $151@153.

Cincinnati: Demand fair; trend steady; supply adequate; 40% $160.

San Francisco: Demand fair; supply ample; Peruvian fish meal $2.35 a unit of protein.

Minneapolis: Steady trend; fair demand; adequate supply; 60% meal, delivered, Minneapolis $152.

Milwaukee: Demand good; supply fair; 60% $159.50, Milwaukee.

Seattle: Demand fair; trend firm; supply limited; $2.35 a unit protein, ex-dock, Peruvian herring meal.

Buffalo: Demand good; trend higher; supply liberal to scarce; 60% protein menhaden $145 bulk, $150 sacked.

Denver: Demand fair; trend steady; supply short; 70% herring $2.40, f.o.b. Seattle; 60% menhaden $137, f.o.b. Gulf.

New Orleans: Demand fair; trend firm; supply light; menhaden 60% $134@136, burlaps; mixed meal, Peru, 60% $135, burlaps.

HAY

Los Angeles: Outlets broad; offerings heavier; U.S. No. 1 antelope, Imperial $36@37.50; U.S. No. 1 $34@35; No. 2 leafy $32@33; No. 2 green $29@30; No. 2 $27@28.

Cincinnati: Demand poor; trend steady; supply adequate; No. 1 timothy $23.50; No. 1 red clover $25; No. 1 second cutting green alfalfa $30; No. 1 red clover mixed $27; wheat or oat straw $23.

Boston: Demand and supply steady; No. 2 timothy $40@42.

Wichita: Demand almost nil; supply ample; prairie $14, alfalfa $14.

Louisville: Demand dull; trend steady; supply good; No. 1 hay, any variety of local $23@25; No. 2 hay, any variety of local $20@23; straw $18@20.

Philadelphia: Demand slow; supply light; $32@35.

Ogden: Supply average; $1 bale; $18 ton in the barn.

Ft. Worth: Demand fair for alfalfa, practically nil for prairie and Johnson grass; supply sufficient; carlots, baled, No. 1 alfalfa $38@40, No. 2 $36@38; prairie No. 2 $26@28; No. 2 Johnson $24@26, delivered Texas common points.

Portland: Demand slow; supply ample; trend unchanged; $25.

Seattle: Demand slow; trend weak; supply good; alfalfa, U.S. No. 2 green $22, delivered, truck lots.

Denver: Demand slow; trend steady; supply ample; baled alfalfa $24@26; baled mountain $30@33.

HOMINY FEED

Boston: Demand steady; supply adequate; $57.50.

Louisville: Demand fair; trend steady; supply normal; $53.

Chicago: Demand fair; supply improving; $49@49.50.

St. Louis: Demand slow; trend lower; supply ample; yellow $49.

Cincinnati: Demand good; trend steady; supply adequate; $52.

Buffalo: Demand and supply fair; trend steady; $54, bulk, Boston.

Seattle: Demand fair; trend strong; supply limited; $59, delivered, sacked, carlots.

Kansas City: Demand good, especially for spot; trend steady; supply tight; yellow $40 bulk, $44.45 sacked.

Milwaukee: Demand good; supply fair; $49.50 sacked, Milwaukee, June shipment.

Memphis: Demand nil; trend steady; supply ample; white $54, yellow $54.

New Orleans: Demand fair; trend steady to higher; supply adequate; $56@57.

FEED INGREDIENTS
Fish Meal • Scrap • Solubles
Bigelow Sales Company
10 Bridge St. NEW YORK 4, N.Y.
Tel. HAnover 2-9195

FROM ICELAND
COD-LIVER-OIL
VITAMIN-A-STABILIZED
MIDLAND WESTERN INC.
160 W. SPRUCE ST., READING, PA.
FROM ICELAND

USERS OF ANIMAL PROTEINS AND FATS!
Keep accurately posted and watch your profits rise!
Pratt's FATS & FEEDS DAILY, an authoritative price guide, has published for over 50 years the markets on dry rendered tankage, meat & bone meal, wet rendered tankage, feather meal, tallow and grease as well as vegetable oils and meals and other animal and vegetable feed raw material. Write us for a sample copy and subscription rates.
PRATT BROS. COMPANY
154 Nassau St. New York 38, N. Y.
183 Essex St. Boston 11, Mass.
431 So. Dearborn St. Chicago 5, Ill.

FEED GRAINS
KAFIR-MILO
BARLEY - CORN - OATS - WHEAT
From Every Grain Producing Area in United States
CONTINENTAL GRAIN COMPANY

OFFICES:
New York, Chicago, Kansas City, St. Louis, Omaha, Columbus, Memphis, Norfolk, Nashville, Enid, Minneapolis, Louisville, Fort Worth, Buffalo, Toledo, Houston, Galveston, Portland, San Francisco, Vancouver, B.C., Winnipeg, Los Angeles

TERMINAL ELEVATORS:
Kansas City, St. Louis, Chicago, Buffalo, Omaha, Toledo, Columbus, Fort Worth, Portland, Boston, Galveston, Enid, Minneapolis, Norfolk, San Francisco, Nashville, Louisville, Memphis, Houston

LINSEED OIL MEAL

Ft. Worth: Demand slow; offerings light; carlots, 34% extracted, May-June $80.75; pellets $2.50 premium.

Chicago: Demand fair; supply adequate; solvent $66.50@67; expeller $69@69.50.

Boston: Demand and supply light; $73.75.

Louisville: Demand slow; trend easy; supply good; old process $75.75; new process $73.25.

Portland: Demand slow; supply ample; trend unchanged; $75.

Philadelphia: Demand and supply fair; 34% $76.

Wichita: Demand fair; supply sufficient; 34% $75.50.

Los Angeles: Demand and trend slow; supply adequate; local production, 29% protein $61@62.

Cincinnati: Demand poor; trend steady; supply adequate; new process $71.50@72; old process $73@73.50.

Omaha: 32% old process, demand good, supply tight $61.75, bulk; 34% solvent, demand fair, supply ample $59.75, bulk.

San Francisco: Demand fair; supply ample; $69.

Minneapolis: Steady trend; good demand; limited supply; new process $55.50@56, bulk, Minneapolis; old process $56.50, bulk, Minneapolis; 22% flaxseed screenings oil feed $38.50, bulk, Minneapolis.

Kansas City: Demand slow; trend steady; supply adequate for demand; solvent meal $54.50@55, bulk, Minneapolis; old process $56.50.

Milwaukee: Demand good; supply fair; old process $67.25; new process $65.75.

Seattle: Demand slow; trend steady; supply ample; $75, delivered, car loads, 34% protein.

New Orleans: Demand slow; trend steady; supply light; 32% or higher protein $80.50@81.

Denver: Demand poor; trend steady; supply ample; 34% $79, rail.

MANEY BROS. MILL & ELEV. CO.
Minneapolis, Minnesota
Feed Ingredients of All Kinds
FORMULA MIXING FOR DEALERS
Excellent References

MALT SPROUTS

Cincinnati: Demand fair; trend steady; supply adequate; No. 1 $39.

Boston: Demand and supply limited; $43.

Chicago: Demand fair; supply adequate; No. 1 $31.50@32.

Milwaukee: Demand good; supply fair; oddweights $34, evenweights $36.

New Orleans: Demand fair; trend steady; supply limited; No. 1 $40@43.

Mix high-profit feeds IN ONE OPERATION WITH Gorton's BLENDS
AL-FISH BLEND
MAR-VI-TIC BLEND
TURKEY BLEND
LAYER BLEND
PUT LIFE IN YOUR LIVESTOCK FEED with New Englander VITALIZER
For full details, write to
NEW ENGLAND BY-PRODUCTS CORP.
177 Milk Street • Boston 9, Mass. • HUbbard 2-1662

MEAT AND BONE MEAL

Ogden: Supply normal; $110 in 100-lb. bags.

Boston: Demand good; supply tight; $1.65 a protein unit; converted 50% $95.

Wichita: Demand good; supply sufficient; 50% $107.50, f.o.b. plant; 55%, no quotations, no offerings.

Ft. Worth: Demand slow; supply sufficient; meat and bone, 50% $102@104, f.o.b. or delivered Ft. Worth.

Chicago: Demand fair; supply limited; 50% protein $105.

Portland: Demand good; supply limited; trend unchanged; $2.20 a protein unit.

Cincinnati: Demand good; trend strong; supply fair; 50% meat and bone scraps $102, sacked, f.o.b. Cincinnati.

San Francisco: Demand good; supply fair; $2.25 a unit of protein.

Omaha: $107.50.

St. Louis: Demand slow; trend steady; supply limited; $110.

Los Angeles: Demand and trend steady; supply limited; 50% protein $2.30 a unit.

Louisville: Demand good; trend firm; supply fair; $92.50@97.50.

New Orleans: Demand good; trend steady; supply sufficient; $98@99.50.

Kansas City: Demand somewhat slower; trend steady; supply about even with demand; 50% meat and bone scraps $103@108.

St. Paul: Softer trend; slow demand; adequate supply; 50% meat and bone $105@110.

New York: Demand excellent; supply fair; trend steady; 50% $92.50, 55% $100.50, bulk; 50% $95.50, 55% $103.50, sacked.

Seattle: Demand good; trend steady; supply fair; $110, ex-warehouse, 50% protein.

Buffalo: Demand good; trend higher; supply ample; 50% meat scraps $102.50 bulk, $107.50 sacked.

Denver: Demand slow; trend steady to weak; supply ample; 50% $97.50.

MILLFEED

Minneapolis: Quiet trend; slow demand; adequate supplies; bran $41@43, standard midds. $43@44, flour midds. $47.50@50, red dog $49@51.

Kansas City: Demand slow; trend weak, with bran holding best; supply ample, except for bran; bran $40.25@41, shorts $43.25@44, sacked; bran $37.50@38.25, shorts $41@41.75, middlings $38.25@39, bulk.

Wichita: Demand strong; supply insufficient; basis Kansas City: bran $40@40.75, shorts $46.75@47.50; bran advanced $1.75@2 and shorts were unchanged to 25¢ higher.

Omaha: Demand good; supply ample; bran $42.50, Omaha basis; gray shorts $46.50; standard midds., bulk $42, Omaha.

Ft. Worth: Demand light; moderate offerings of bran, but offerings of shorts pressing; carlots, burlaps, prompt, bran $46.50@47.50; gray shorts $52.50@53.50, delivered Texas common points; 50¢ higher on bran and $3.50 lower on shorts compared with previous week.

Chicago: Millfeeds held nearly steady during the week ending May 7. A letdown in demand occurred, but flour mills were said to be short of running time and prices were kept from declining by a corresponding lack of pressure from supplies on the market. Quotations: bran $46@46.50, standard midds. $49@50, flour midds. $52@53, red dog $53@54.50.

St. Louis: Demand fair; trend lower; supply limited; bran $45.75@46.25, shorts $49.25@49.75, sacked; bran $43@43.50, shorts $47@47.50, middlings $44.25@44.75, bulk.

Cincinnati: Demand good; trend steady to higher; supply adequate; bran $52.50; middlings $54.50.

Boston: Demand active; supply tight; bran $57, middlings $58.

Buffalo: Season declines still prevail in the mixer industry. Inventories are light and prices weak. Bran was down $5 and middlings $4.50 from last week. Red dog showed no change. Quotations: bran $46@47, middlings $48@49.50 and red dog $59@60. The bulk differential on both bran and middlings was $4.50.

New York: Demand good; trend steady; supply fair; bran $57.50@58, standard midds. $59.50@60.

Philadelphia: Demand slow; supply fair; bran $57; standard midds. $59; red dog $67.50.

New Orleans: Demand slow; trend unsettled; supply adequate; bran $50@50.75; shorts $53.25@59.

Memphis: Demand poor; trend lower; supply ample; wheat bran $49.50, gray shorts $53.50, standard midds. $51.50.

Louisville: Demand fair; trend strong; supply ample; bran $52.75, mixed feed $56, shorts $59.75, middlings $57.50.

Seattle: Demand fair; trend firm; supply limited; $40, delivered common transit points, carlots.

Portland: Demand good; supply ample; trend unchanged; $39.

Ogden: Supply average; to Utah and Idaho: red bran and mill run $38, middlings $43; to Denver: red bran and mill run $45, middlings $50; to California: red bran and mill run $45.50, middlings $50.50, f.o.b. San Francisco and Los Angeles.

Denver: Demand good; trend strong; shorts supply is tight; bran $44.50, shorts $49.50, mill run $47.

Los Angeles: Standard mill run $48, fair demand, firmer trend, light offerings; red bran $55@56, slow demand, firmer trend, adequate supplies.

San Francisco: Demand fair; supply ample; millfeed $47; red bran $52.

MINERAL FEED

San Francisco: Demand steady; supply good; all-purpose with iodine $70.

Sioux City: 50-lb. mineral blocks 8.2% phosphorus $92; 7.5% phenothiazine sheep mineral blocks $4 each.

Seattle: Demand fair; trend steady; supply good; mixer mineral $48, ex-warehouse; all-purpose mineral $85, ex-warehouse.

Ft. Worth: Demand fair; supply ample; all-purpose granules $89, block $94; mineral phosphorus 6% granules $105, block $110; cattle-sheep mineral 7% phosphorus granules $99, block $103; hog mineral phosphorus 3½% granules $88, phosphorus 2% $78 (all in 50-lb. paper bags).

Ogden: Supply average; $110 in 50-lb. blocks; $98, granular, 50-lb. bags.

Wichita: Demand good; supply adequate; all-purpose with iodine, 50-lb. blocks $95; 100-lb. bags $90, f.o.b. plant.

Portland: Demand good; supply ample; trend unchanged; $42.

Denver: Demand fair; trend unchanged; supply ample; 7.5% phenothiazine, 45-lb. block $4.50; 8.2% phosphorus, 50-lb. block $3.50; 7.5% phenothiazine, 8.2% phosphorus, 45-lb. block $5.25; 6% phosphorus, 50-lb. block $2.65.

MOLASSES

Louisville: Demand slow; trend easy; supply normal; 14½¢ gal., tank car lots, Gulf ports.

Boston: Demand steady; supply plentiful; 18½¢ gal. in tank cars.

Ft. Worth: Demand fair; supply sufficient; blackstrap 16¢ gal., f.o.b. Houston; delivered Ft. Worth truck $35.06, seller's market price on date of shipment.

St. Louis: Demand slow; trend steady; supply ample; 14½¢ gal., New Orleans.

Los Angeles: Demand fair; trend unchanged; supply ample; $25 bulk, f.o.b. tank cars; $26.25 bulk, f.o.b. tank trucks.

Cincinnati: Demand fair; trend steady; supply adequate; 14½@15¢ gal., New Orleans.

San Francisco: Demand and supply good; $24, f.o.b. cars, Richmond, Cal.

Seattle: Demand fair; trend steady; supply good; $24, f.o.b. Seattle, tank car lots or truck lots.

Minneapolis: Steady trend; fair demand; ample supplies; 14½¢ gal., New Orleans; $34.50, f.o.b. terminals.

New York: Demand and supply good; trend steady; blackstrap 18¢ gal., tank cars, tank wagons, f.o.b. New York.

Kansas City: Demand slow; trend steady; supply adequate; 14¼¢ gal., tank car, New Orleans.

Milwaukee: Demand fair; supply good; blackstrap 14¢ gal., f.o.b. New Orleans.

Buffalo: Demand and supply good; trend steady; 18½¢ gal., f.o.b. Albany.

Memphis: Demand fair; trend steady; supply ample; blackstrap 15¢ gal., tank car, f.o.b. New Orleans, and $32.40 ton, delivered Memphis, truck.

Denver: Demand fair; trend steady; supply ample; $47, tank car.

Atlanta: Demand good; trend steady; supply limited; citrus $20, bulk, f.o.b. Florida producing points, immediate.

New Orleans: Demand fair; trend steady; supply plentiful; 14½¢ gal. in tank cars or trucks; 600-lb. customers' drums $9.36.

NIACIN

New York: Trend steady; $8 kilo, 50-kilo lots; $8.10 kilo, 10-kilo lots; $8.20 kilo, 5- and 2½-kilo lots; $8.30 kilo, 1-kilo lots; freight prepaid or paid to destination.

OAT PRODUCTS

Seattle: Demand fair; trend firmer; supply ample; whole oats $61, ground oats $61, rolled oats $63, all ex-warehouse, l.c.l., sacked.

Minneapolis: Steady trend; good interest;

KAFIR & MILO
Largest Dealers in Southwest
MID-CONTINENT GRAIN CO.
Board of Trade Victor 2-4671
KANSAS CITY, MO.

Dehydrated Corn Cobs Products
Flour • *Highest Quality* • *Bulk*
Meal • *Prompt Shipments* • *Bagged*
Litter
Prices and Samples on Request
Cargill, Incorporated
Commodities Department
200 Grain Exchange • Minneapolis 15, Minnesota

SW
FOR THE BEST IN
COOLERS
SPROUT-WALDRON
MUNCY, PENNA.

CHECKERBOARD – *The Mark of Top Quality – Top Service*
WABASH ELEVATOR
4,000,000 BUSHELS

MILO–CORN
ALL FEED GRAINS
CHECKERBOARD GRAIN CO.
BOARD OF TRADE BLDG. • KANSAS CITY, MO. • PHONE HA 1-1114
ST. LOUIS • CHICAGO • MINNEAPOLIS

active supply; feeding rolled $85; pulverized $44@44.50; feeding oatmeal $71@71.50; crimped oats $61.50; reground $15.

Los Angeles: Demand fair; trend firmer; supply adequate; pulverized, local production $61.

Cincinnati: Demand fair; trend steady; supply adequate; reground oats $17; pulverized white oats $48@50; rolled oats $85@91.

Louisville: Demand fair; trend easy; supply normal; reground $22, rolled $88, feeding $81.50, crimped $70.50, pulverized $49.50.

Ft. Worth: Demand fair; supply sufficient; oat millfeed $44.95; reground oat millfeed, 3% protein, sacked $22.95; 8% protein, bulk $28.

Chicago: Demand fair; supply adequate; reground oat feed $14@14.50; fine ground feeding oatmeal $71@72; feeding rolled oats $83@84.

Portland: Demand good; supply ample; trend unchanged; rolled $60, ground $57, cleaned $60.

Boston: Demand and supply fair; white pulverized $54, reground oat feed $25.

Philadelphia: Demand slow; supply fair; pulverized white $53.50; Canadian oat feed $26; domestic $24.75.

Memphis: Demand poor; trend steady; supply ample; 3½% protein, reground oat feed $20.50.

New Orleans: Demand slow; trend firmer; supply adequate; ground oats $71@71.50; pulverized $71.50@72.

OYSTER SHELL

Seattle: Demand and trend steady; supply good; eastern $40, L.c.l., ex-warehouse.

Louisville: Demand fair; trend steady; supply good; in 80-lb. paper bags $23.17, in 50-lb. paper bags $23.42, in 25-lb. paper bags $25.67.

Los Angeles: Demand fair; trend steady; supply ample; $14.80.

Cincinnati: Demand fair; trend steady; supply adequate; $21.75.

San Francisco: Demand fair; supply ample; local $15, eastern $26.

Boston: Demand and supply steady; in paper $25.36.

Portland: Demand good; supply ample; trend unchanged; western $32, eastern $38, granite grits $26, shell flour $16.

New Orleans: Demand fair; trend steady; supply adequate; $14.80@16 local.

PEANUT OIL MEAL

Milwaukee: Demand and supply fair; 26% $35.

Atlanta: Demand fair; trend steady; supply limited; 45% $72, sacked, immediate.

PEAT MOSS

Seattle: Demand and supply good; trend steady; $3.25 bale, delivered truck lots.

Los Angeles: Demand and trend steady; supply ample; Canadian 6.1 cu. ft. bales $3.85.

San Francisco: Demand fair; supply ample; $3.75 bale.

Chicago: Demand heavy; supply moderate; $3.75@3.85, standard 7½ cu. ft. bale.

Philadelphia: Demand slow; supply fair; $2.95, f.o.b. pier.

Boston: Demand and supply steady; $3.15 bale in carlots.

Portland: Demand good; supply ample; trend unchanged; $3.25 bale.

POTASSIUM IODIDE, U.S.P.

Cincinnati: Demand good; trend steady; 90% KI in calcium stearate or carbonate mixtures, 250-lb. drums $1.81; 200-lb. to 100-lb. drums $1.83; 25-lb. drums $1.86, f.o.b. Cincinnati.

New York: Trend steady; granular or crystals $1.90 lb. in 250-lb. drums, $1.92 lb. in 100-lb. drums, $1.95 lb. in 25-lb. drums; 90% KI in calcium stearate or carbonate mixtures, $1.81 lb. in 250-lb. drums or 200-lb. lots, $1.83 lb. in 100-lb. drums, $1.86 lb. in 25-lb. drums; f.o.b. New York, New Jersey or Pennsylvania, freight allowed to destination on 100-lb. drums or larger packings.

POULTRY BY-PRODUCTS

Boston: Demand good; supply tight; $99, f.o.b. eastern shipping points.

Ft. Worth: Demand good; supply very limited; 55% protein $97.50, f.o.b. north Texas plant.

Los Angeles: Demand good; trend firm; supply limited; $2 a unit of protein.

Atlanta: Demand good; trend steady; supply limited; $107 sacked, f.o.b. Alabama and Georgia producing points, immediate.

RIBOFLAVIN

Cincinnati: Trend steady; feed grade (in feed supplements) 4¢ gm. in 3.36 to 16 gm./lb. mixtures, freight prepaid or paid to destination.

New York: Trend steady; feed grade (in feed supplements) 4½¢ gm. in 3.36 to 16 gm./lb. mixtures, freight prepaid or paid to destination.

RICE BY-PRODUCTS

Ft. Worth: Demand fair; very light offerings; carlots, rice bran $31.50@32, prompt shipment, f.o.b. south Texas rice mills; hulls $2, f.o.b. mills.

Los Angeles: Demand fair; trend unchanged; supply limited; bran, California production, high fat content $52.

San Francisco: Demand fair; supply ample; bran $45; polished $49.

Atlanta: Demand fair; trend steady; supply limited; bran $47, sacked, immediate.

SCREENINGS

Cincinnati: Demand fair; trend steady; supply adequate; barley $28.60.

Chicago: Demand fair; supply plentiful; ground grain screenings $36.50; Canadian, bulk $18.50.

Ft. Worth: Demand poor; supply sufficient; 12% protein, ground $30, nominal.

Minneapolis: Weaker trend; Canadian supply more abundant; domestic supply still short; slow demand; lights $6@12, mediums $13@20, heavies $21@30; Canadian, bulk $14; Canadian ground $24; flaxseed screenings $30; oil type flaxseed screenings, 15% basis $36.

Buffalo: Demand fair; trend steady; supply adequate; ground and sacked $28.50, lake and rail; unground, bulk $23.26, New York.

SOFT PHOSPHATE WITH COLLOIDAL CLAY

Atlanta: $20.40@20.67.
Buffalo: $25.31@25.45.
Chicago: $24.77@24.90.
Cincinnati: $23.47@23.60.
Des Moines: $25.23@25.35.
Kansas City: $24.85@25.
Memphis: $22.20@22.47.
Minneapolis: $25.92@26.06.
Philadelphia: $24.32@24.45.
St. Louis: $24.14@24.37.

SORGHUM

Los Angeles: Demand slow; trend easier; supply ample; milo $2.55 cwt., bulk.

Ft. Worth: Demand fair; supply limited; carlots, bulk, No. 2 yellow milo $2.34@2.36, Texas common points.

SOYBEAN OIL MEAL

Omaha: Demand poor; supply ample; $64.26, bulk.

Cincinnati: Demand fair; trend steady; supply adequate; $59, bulk, Decatur.

San Francisco: Demand fair; supply ample; $89.50.

St. Louis: Demand fair; trend lower; supply adequate; $67.

Los Angeles: Demand slow; trend weaker; supply ample; $88.95.

Ft. Worth: Demand decreasing; supply sufficient; carlots, 44% $82@83.50, depending on origin and tonnage, scattered May $78@79.50 scattered June truck delivery; $72.50 immediate - May; $68.50 scattered June.

Ogden: Supply average; $81@86.

Chicago: Buyers of soybean oil meal adopted a wait and see attitude during the week ending May 7. Needs seem to be fairly well covered through May and lower prices encouraged holding off. Prices slipped around $3. Quotations: 44% soybean oil meal $67@67.50; 50% $77@77.50.

Portland: Demand steady; trend lower; supply ample; $54.50, f.o.b. Decatur.

Philadelphia: Demand and supply fair; 44% $67.50, bulk, Decatur.

Louisville: Demand slow; trend easy; supply ample; $69.93.

Wichita: Demand good; supply ample; 44% $73, 50% $83.

Boston: Demand fair; supply ample; 44% $59.50; 50% $64, both f.o.b. Decatur.

Decatur: Demand fair; supply adequate; 44% bulk, unrestricted $57@57.50.

Kansas City: Demand slow; trend steady; supply ample; meal for Kansas City and West $53@53.50, bulk, Decatur; unrestricted $57 for spot and $54.50 for late May.

Seattle: Demand steady; trend weaker; supply ample; $93, delivered, carlots.

Milwaukee: Demand fair; supply good; $55, bulk, Decatur.

Minneapolis: Steady trend; fair demand; adequate supply; $59.

Atlanta: Demand fair; trend steady; supply ample; 44% $73.50, sacked, immediate.

Memphis: Demand dull; trend steady; supply tight; prime 44% solvent $63 sacked, f.o.b. Memphis.

Denver: Demand slow; trend weaker; supply ample; 44% $83, rail.

New Orleans: Demand fair; trend stronger; supply average; 44% $86@86.50.

TANKAGE

Ft. Worth: Demand slow; supply sufficient; 60% digester $104@106, f.o.b. Ft. Worth.

Chicago: Demand fair to slow; supply limited; 60% protein $107.50@110.

Louisville: Demand good; trend steady; supply fair; 60% $97.50@102.50.

St. Louis: Demand slow; trend lower; supply limited; $114.

Omaha: $110.

Cincinnati: Demand good; trend steady; supply fair; 60% digester $112, sacked, f.o.b. Cincinnati.

Wichita: Demand good; supply sufficient; 60% $112.50, f.o.b. plant.

St. Paul: Weak trend; slow demand; adequate supplies; 60% digester $107@110.

Kansas City: Demand slowed; supply even with demand; trend steady; 60% digester $108@113.

New Orleans: Demand slow; trend easier; supply adequate; 60% $112.50@117.

VITAMIN E FEED SUPPLEMENT

Rochester, N.Y.: Demand and supply good; trend steady; 100-lb. drums $1.70 lb., 25-lb. drums $1.75 lb., f.o.b. manufacturing plants, freight allowed and goods insured to destination.

New York: Demand and supply good; trend steady; 100-lb. drums $1.70 lb., 25-lb. drums $1.75 lb., f.o.b. manufacturing plants, freight allowed and goods insured to destination.

Cincinnati: Demand good; trend steady; any quantity in 100-lb. drums $1.70; in 25-lb. drums $1.75; freight allowed to destination.

WHEAT GERM MEAL

Chicago: Weaker trend; steady demand; adequate supplies; $70.

Buffalo: Demand and supply fair; trend steady to higher; commercial grade $64, sacked, f.o.b. Buffalo.

New Orleans: Demand good; trend firm; supply adequate; $76@78.

K-STATE

(Continued from page 1)

practically complete. After these plans have been checked with the architects employed by the college, they must be sent to the state architect at Topeka, for drawing of specifications for bids.

Dr. Shellenberger estimated that bids are not likely to be let and accepted before next Jan. 1 and that it is customary to allow 18 months to two years for completion of state college buildings. Although this period might be reduced somewhat by reason of the urgent need for the facilities, he said it is unlikely that the building could be ready in less than 18 months.

The new milling wing planned for addition to Waters Hall will house a new pilot flour mill, along with laboratories and other facilities for both the flour and feed programs. There will be an increase of about 11% in space available to the department.

The pilot feed mill was not seriously damaged in the fire.

GRAIN PLAN

(Continued from page 1)

porters will submit proof of exports of grain to the CCC. They will be given payment-in-kind certificates. These will carry specific dollar values based on the number of bushels exported times the export payment rate for the kind of grain exported. The export payment rates will be set by competitive bidding by exporters and acceptance by CCC.

The certificates will be redeemable in any feed grains available from CCC. The value of the CCC grain will be figured at going market prices. The grain will be delivered by CCC at seaboard for export.

As the new export programs go into operation, CCC, as noted above, is resuming sales, for unrestricted use, of nonstorable grain in warehouse and at bin sites.

The new export program is a result of discussions between a grain industry committee and USDA officials.

In some respects, it is considered unfortunate that the feed grain program gets off to a start so late in the corn crop year when much of the world export business in corn has already been committed, at least so far as the U.S. share is concerned.

Subsidy Rate

Meanwhile, a principal question remains that of the rate of subsidy bids which CCC will accept. It is seen that the government will have considerable latitude in channeling demand of one feed grain over another just as it suits USDA purposes in funneling one commodity into the export stream in precedence over another.

Such flexibility of CCC subsidy action must be expected as an instrument whereby it will act to relieve storage congestion or to favor a commodity where surpluses seem to be mounting heavily.

In the subsidy bidding procedure, at the close of the market each day, exporters will be permitted to submit bids for a subsidy for certain quantities of corn. Bidding will be open for one hour, and after that period as quickly as possible, CCC will notify successful bidders of its decision.

The trade had asked that a bid once accepted might be available for indefinite use at some later date, but since the program is getting under way in the latter half of the corn crop year, officials felt they could not run the risk of abetting subsidy windfalls which might occur.

However, USDA agreed that bids will be accepted for three basic 60-day periods during which the quantity of the commodity obtained in advance of export must be exported by the successful bidder or owner of the in-kind certificate. It is expected that there will be a traffic in subsidy certificates between exporters or intermediates.

There will be an interchangeability for certificate redemption among all feed grains, after the later regulations are issued for the other grains —oats, barley, rye and grain sorghums.

PROUD PARENTS

CHICAGO — Mel A. Jurgens, assistant buyer of the feed division of Illinois Farm Supply Co., Chicago, and his wife, Bonnie, became the parents of a baby boy May 7. Todd Melvin was born at the Geneva Community Hospital, and weighed 8 lb., 7 oz. This is the Jurgens' second child. The first is a girl, Heather, three years old.

DECREASE LIVE STOCK LOSS

Use Milligan's New
PENICILLIN SALT MIX
An aid in reducing the incidence of bloat in cattle

We Have PREMIX Penicillin Salt
MAKE YOUR OWN and SAVE
Dealer Inquiry Solicited
MILLIGAN & SON, Inc.
314 So. Chambers St.
Sioux City, Iowa

LAB PROTECTION FOR YOUR FEED QUALITY

FEEDS "Laboratory Controlled"
AT REMARKABLY LOW COST

Fully equipped for tests of new feed additives as well as protein, fat, fiber, etc.

QUICK SERVICE ON VITAMIN ASSAYS — CHECKS ON FEED ADDITIVES — FUMIGANT RESIDUES
REFEREE LABORATORY

Doty LABORATORIES
Cereal Technologists

1435 Clay St. • NO. KANSAS CITY 16, MO. • Tel. GRand 1-8580

VISIT OUR NEW MODERN LABORATORY • 7000 SQ. FT. WORK SPACE

Farm Commodity-Feed Price Ratios

	U.S.	New Eng.	Mid-Atl.	East North Cent.	West North Cent.	South Atl.	East South Cent.	West South Cent.	Mount.	Pac.
CHICKEN-FEED—										
Farm Chickens:										
April, 1958	4.8	4.9	5.2	5.0	4.5	4.6	4.4	4.2	4.4	4.1
March, 1958	4.9	5.0	5.1	5.1	4.5	4.5	4.4	4.2	4.4	4.2
April, 1957	4.1	3.9	4.6	4.2	3.2	4.4	4.2	3.7	4.1	3.3
Average (1947-56)	6.0									
Average (April, 1947-56)	6.4									
Broilers:										
April, 1958	3.9	4.1	4.7	4.3	4.0	3.7	3.8	3.9	4.5	4.1
March, 1958	4.4	4.5	5.1	4.7	4.6	4.2	4.2	4.4	4.5	4.8
April, 1957	3.9	4.2	4.4	4.6	4.0	3.7	3.7	3.6	4.2	4.1
TURKEY-FEED—										
April, 1958	7.6	8.0	8.5	8.2	8.7	7.2	6.9	6.4	..	6.4
March, 1958	8.0	8.4	8.6	8.3	10.0	7.5	7.0	6.6	7.1	5.8
April, 1957	7.6	8.7	9.0	7.8	7.8	6.9	7.6	6.2	6.6	5.6
Average (1947-56)	8.7									
Average (April, 1947-56)	8.7									
EGG-FEED—										
April, 1958	10.8	11.8	11.6	10.9	10.9	10.6	10.3	10.5	10.4	9.8
March, 1958	12.0	13.2	13.5	11.9	12.4	11.6	11.5	11.0	10.3	10.4
April, 1957	9.7	10.0	10.2	8.5	8.0	8.7	8.4	7.7	8.5	8.3
Average (1947-56)	11.2									
Average (April, 1947-56)	10.0									

	U.S.	North Atl.	East North Cent.	West North Cent.	South Atl.	South Cent.	West
MILK-FEED—							
April, 1958	1.31	1.23	1.25	1.44	1.53	1.40	1.36
March, 1958	1.41	1.34	1.35	1.53	1.63	1.50	1.45
April, 1957	1.20	1.23	1.25	1.33	1.51	1.34	1.31
Average (1947-56)	1.26						
Average (April, 1947-56)	1.16						
BUTTERFAT-FEED—							
April, 1958	23.4	...	19.6	26.3	...	15.5	19.1
March, 1958	24.4	...	20.4	27.6	...	15.8	19.8
April, 1957	22.1	...	19.3	22.9	...	15.3	18.6
Average (1947-56)	21.9						
Average (April, 1947-56)	21.3						

HOG-CORN—	U.S.	North Cent.
April, 1958	18.0	18.8
March, 1958	20.3	21.6
April, 1957	14.4	15.0
Average (1947-56)	13.2	13.5
Average (April, 1947-56)	13.0	13.3

NOTE: Ratios computed at mid-month by U.S. Department of Agriculture. Ratios represent number of pounds of poultry feed equal in value to 1 lb. live farm chicken, turkey or 1 doz. eggs; pounds broiler growing mash equal to 1 lb. broiler; pounds concentrate rations equal to 1 lb. milk or butterfat; bushels of corn equal to 100 lb. hog. Increases in ratios are favorable to the feeder.

KEY TO GEOGRAPHICAL DIVISION

Here is a guide to the states included in the geographical divisions listed in the accompanying commodity-feed price ratios:

New England: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.

Mid-Atlantic: New York, New Jersey, Pennsylvania.

North Atlantic: New England and Mid-Atlantic states combined.

East North Central: Ohio, Indiana, Illinois, Michigan, Wisconsin.

West North Central: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

North Central: Combination of the two foregoing.

South Atlantic: Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

East South Central: Kentucky, Tennessee, Alabama, Mississippi.

West South Central: Arkansas, Louisiana, Oklahoma, Texas.

Pacific: Washington, Oregon, California.

Mountain: Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Montana.

West: Combination of the two above.

South Central: Combination of the two above.

LEGISLATION

(Continued from page 7)

markets realize the effect of even the introduction of this legislation, it is bound to drive cotton prices down and prepare the stage for similar action for the price support level for wheat with its frozen acreage allotment of 55 million.

USDA officials who have been willing to discuss the outline of what lies ahead for cotton, report that the rice industry has already thrown in the sponge and is now asking for a lower level of support.

So one by one the remaining rubble of the high price support "Maginot Line" is crumbling.

Benson Victory

It is nothing less than a total victory for Ezra Taft Benson, secretary of agriculture, when the cotton industry moves in this direction.

This report on cotton legislation is not ordinarily a primary news item for Feedstuffs, but it is obviously related to the entire farm economy, especially the protected commodity crops under price supports and acreage allotments. It must be suspected that they are the next to crumble under the steady but effective attacks of the Benson administration at USDA.

A question most commodity market interests will have to ask themselves is what will be the price effect on other commodities under price support and acreage controls when cotton legislation is introduced and if passed by Congress?

It must also be understood that there is a keenly sympathetic interest in Congress of a bi-partisan nature to do something for cotton at this session. It is believed that this interest is primarily one of expanded acreage for the 1959 and successive cotton crops.

This goal can only gain top administration approval through concession as to levels of price support at the 65-70% of parity range.

It is reported that Secretary Benson is prepared to accept the type of legislation stated above and that he is not intending to act in a punitive manner to strike a defeated foe. On the contrary, he may be willing to make non-basic concessions within the framework of the brief outline of the planned bill.

The secretary has been a stout adversary as the congressional farm bloc now may realize, but every sign indicates that he will be a generous victor, confirming his intense and repeated assertions that his objective is the overall good of the farm community and the nation.

The benchmark of commodity prices henceforth must be adjusted to what is to be done for cotton. The cotton industry is focusing its interest now on lower prices and expanded production for the 1959-60-61 crops. No other admonitions should be necessary to those interested on wheat, corn and the other feed grains.

Oregon Cattlemen to Hold 45th Convention

ONTARIO, ORE. — Current livestock industry problems will come up for attention at the 45th annual Oregon Cattlemen's Assn. convention in Ontario May 11-14, announces George Russell, Vale, association president.

"Increased interest of beef producers in discriminatory freight rates, foreign cattle and frozen beef imports, sanitary regulations, property taxes and other industry problems could result in a new convention attendance record," commented Mr. Russell.

Convention speakers will include Jack Milburn, Grass Range, Mont., American Cattlemens Assn. president; Larry Hilaire, Portland, National Restaurant Assn. president, and Gov. Robert Holmes.

Amos W. Standish

JOINS MILLER — Amos W. Standish has joined the Chicago sales office of The Miller Publishing Co., Minneapolis, publisher of Feedstuffs, announces W. E. Lingren, advertising director. Mr. Standish will represent Croplife and Farm Store Merchandising, two of the company's seven trade publications, in the Chicago area. Mr. Standish was raised on a farm. He has worked as manager of a farm implement store and in media sales for farm publications. For the past two years he has been a media sales representative for Building Supply News, Chicago. He attended Parsons College in Iowa, and resides in Park Forest, Ill.

ADM Sales, Earnings Show Gain in March

MINNEAPOLIS—Sales and earnings of Archer-Daniels-Midland Co. "turned the corner" in March and are expected to show further gains in the next quarter, Thomas L. Daniels, ADM president, reports.

Mr. Daniels said March earnings were much improved over those of the previous two months and that forecasts for most of the company's divisions indicate profits for April, May and June will show a gain over this past quarter.

Reduced production in the automotive and allied industries and a substantial drop in the price of dehydrated alfalfa were reflected in lower earnings for ADM in the first nine months of its current fiscal year, according to Mr. Daniels.

ADM had net earnings for the nine months ended March 31 of $2,584,844, equal to $1.63 a share on 1,585,753 shares outstanding. This compares with net profits for the same nine months a year ago of $4,433,664, equal to $2.79 a share on 1,585,391 shares.

Net profit for the three months ended March 31 was $539,940, equal to 34¢ a share, compared with $1,685,054, equal to $1.08 a share in the same quarter last year.

ADM directors voted a dividend of 50¢ a share on ADM common stock, payable June 2 to stockholders of record May 19. The dividend extended the company's record of consecutive quarterly dividends to 107. It is ADM's 127th cash dividend.

Idaho Poultry Firm Plans Feed Mill, Broiler Operation

NAMPA, IDAHO — The Stone Poultry Co. has announced it plans to construct a mill to grind and mix feed for 150,000 turkeys annually, and will start a new broiler growing operation with a capacity of 300,000 birds.

The mill will be located in the heart of the Nampa industrial district. The complete mill design will be provided by Reid-Strutt Co., Portland, Ore.

The mill will include the latest equipment for automatic batching of mixes and for pneumatic handling of materials in the plant, according to the company. Equipment to be installed includes two 50-h.p. Oliver pellet mills, together with Strong-Scott and Prater processing machinery. When completed, the plant capacity, per eight hour shift, will average around 60 tons.

The broiler operation will be located near here and will have 200,000 sq. ft. of storage space. It will have a capacity for raising four batches of broilers each year. Feeding and watering will be automatic. Combined employment of the two plants will be from 35 to 49 workers.

Cost of the mill is estimated at $200,000, according to Bill Shannon, plant manager. The broiler factory will cost about $300,000. Facilities are expected to be in complete operation within six months.

MARKETS

(Continued from page 2)

Soybean meal was weak and off $2 to $3 ton. Cottonseed meal held and gluten meal showed no change. Linseed oil meal was strong and up 50¢ to $1 over last week. Fish meal was weak and meat scraps unchanged.

Bran and midds. were weak and off $3 to $5 from last week. Gluten feed was strong, but unchanged. Brewers grains showed strength along with distillers grains. Distillers grains were quoted as high as $68. Hominy feed and beet pulp were up.

The mill feed industry continued to show signs of the seasonal decline. Inventories continued light. Mill running time was light at an average of four to five days. Buffalo was still the best buy being $4 cheaper on bran and $3 cheaper on midds. than the western market.

Southeast

Feed business held steady through the week. Feed mill running time was reported to be good and feed prices about steady. Cattle prices were reported to be holding high levels as was other livestock and poultry, which all goes for good feed ratios and continuing demand from feeding operations.

Steadily improving pastures caused continued slowness in dairy feed. However, demand for roughage materials was good. Citrus pulp demand remained excellent, and with most major processors reported to be completing the season's operations within the next few days, a $2.50 ton price increase has gone into effect at most producing points. This increase was expected by the trade

Millfeed Production Shows Increase

Production of millfeed in tons for week ending May 3, and prior two weeks, together with season total of (1) principal mills in Nebraska, Kansas and Oklahoma and the cities of Kansas City and St. Joseph; (2) principal mills of Minnesota, Iowa, North and South Dakota and Montana, including Minneapolis, St. Paul and Duluth-Superior; (3) mills of Buffalo, N.Y. Production computed on the basis of 72.6% flour production.

	Southwest* Weekly production	Southwest* Crop year to date	Northwest* Weekly production	Northwest* Crop year to date	Buffalo† Weekly production	Buffalo† Crop year to date	Combined** Weekly production	Combined** Crop yr. to date
April 27-May 4	22,174	1,151,697	12,632	572,307	9,481	461,869	44,287	2,185,873
Previous week	‡20,991		‡12,327		8,838		‡42,156	
Two weeks ago	24,511		12,869		10,257		47,637	
1957	25,355	1,181,736	12,854	607,432	10,893	476,392	49,102	2,265,560
1956	22,777	1,118,368	12,691	589,071	9,678	408,536	45,146	2,115,975
1955	23,537	1,100,182	12,177	585,950	10,936	465,972	46,650	2,152,004
1954	22,496	1,055,861	11,425	619,284	9,536	476,362	43,457	2,151,507

*Principal mills. **74% of total capacity. †All mills. ‡Revised.

for some time, and due to short storage supplies, it met very little resistance from the trade.

It has been reported that intentions to plant corn acreage greatly exceed that actually planted last year throughout most of the southeastern states, however wet weather has been causing planting operations to be about two weeks behind the same time last year.

Feed ingredients, which have been moving well during recent weeks to the feed manufacturer, have slowed noticeably, tightness in supplies was indicated in some cases. Most purchasing agents for feed manufacturers and feed dealers reported that they were in a comfortable position from a supply standpoint and, at least for the time being, would need to buy only fill-in needs at the price prevailing at the time of purchase.

Pacific Northwest

Supplies of most feed ingredients balanced demand, and quotations ruled unchanged for all items with the exception of soybean meal and millfeed.

Soybean meal listings continued to decline from recent high levels by losing another $1.50 a ton. Millfeed values were unchanged to 50¢ ton higher as the continued reflection of a better domestic demand. Quotations for corn and other feed grains held unchanged.

Formula feed sales volume was holding up extremely well for this season of the year.

The spokesman for one representative Portland feed mill said his firm's broiler feed sales were up 25% from one year ago, while the manager of another feed organization indicated that egg mash sales were slightly better than one year ago.

Dairy feed sales were slightly below one year ago at another feed outlet as the reflection of good pasture conditions and cheap hay.

Another feed mixer reported that laying mash sales along with the turkey and dairy feed movement were the same as one year ago with broiler mash sales up sharply.

Portland producer-paying prices for eggs held unchanged, but one large distributor cut the inside price on eggs to retailers as the result of lower prices at Seattle and other Pacific Coast markets.

Live chicken market trading at Portland was marked by ½¢ to 1¢ higher producer-paying prices for fryers and a 1¢ advance for heavy-type hens. Fryers were bringing producers 21@21½¢ lb., f.o.b. ranch live while heavy hens are selling at 21¢ on the same basis.

Fed steer prices were firm to strong at the North Portland livestock market last week with choice, 900 to 1125 lb. animals topping the market at $29.35. Good sold at $26.50-28.

Ohio Valley

Another week of cold, rainy weather throughout the Ohio Valley further delayed spring plowing and planting activities, but, at the same time, kept sales of formula feeds in high tonnages.

During the week, temperatures dropped to 30° several mornings, to record the coldest May weather in this area in 50 years. Fortunately, most fruit tree blooms had been set a few days earlier, so the light frosts caused but little damage to farm crops.

Despite the unseasonable weather, pasture grasses have been developing good stands, and were suitable for animal feed, excepting that valley pastures very generally were too muddy for this purpose. Up to this writing, the Ohio River had remained under flood stage, and promised clearing weather was expected to remove this threat.

This unusual weather situation was resulting in continuing good demands for all types of feeds, and with prices easing off this week an average of about 80¢ ton, it was expected the May volume of sales will exceed that for any similar month in many years.

While there was no indication of any immediate sales decline, most observers expected some business decline when pasturage becomes more suitable than it has been. This seasonal shift in feeding procedures could be offset to a considerable extent by the recent heavy placements of baby chicks and poults on valley farms, some observers believe.

California

Egg prices declined from 1@1½¢ on large and 3@3½¢ on medium sizes. There was a little strength registered in prices on live poultry as well as ice-packed fryers but the market demand was only moderate.

All in all, there was nothing in the whole picture that furnished any encouragement to expanding production or increasing sales of formula feeds. There were some significant changes in prices of various ingredients with new crop molasses dried beet pulp up $2.25 to $2.50 ton and dehydrated alfalfa meal up $2.

In the proteins, soybeans was again on the weak side and lost another $2.75 ton while copra cake was $1 ton easier.

Pasture conditions continued on the very favorable side as the weather was not too hot and new feeders were very slow showing up in commercial feed lots.

South Central

Feed business showed only a moderate change from the previous week, with a leaning to a slightly lower volume. All of the mills were operating well, using normal shifts for full five days production. Overtime runs, a feature of the last several weeks operations, were becoming fewer and shorter.

With the exception of cattle feeds, the entire general line of feeds was sharing in the current business. Pig and hog feeds were the outstanding leaders in deliveries with poultry feed sales starting to build up rapidly. A continued improvement in chick starter and broiler feed sales encouraged some mills to revise their estimates of their probable market.

The surprisingly large volume of dairy feed moving seemed to completely disregard the seasonally improving pastures. Mills were somewhat at a loss to tailor their dairy feed ingredient purchases to fit the present demand without being oversupplied when the demand suddenly shuts off.

Price lists were steady to lower this past week and are expected to drop $1 or more this week following the downturn in ingredient prices.

INDEX OF ADVERTISERS

The index of advertisers is provided as a service to readers and advertisers. The publisher does not assume any liability for errors or omissions.

Abbott Laboratories 45
Aeroglide Corporation .....
Agri-Tech, Inc. .....
Agricon, Inc. .....
Alabama Flour Mills .....
Albers Milling Co. .....
Albumina Supply Co., Inc. .. 63
Allied Chemical Corporation, Nitrogen Division 50
Allied Mills, Inc. .....
Amburgo Co., Inc. .....
American Agri. Chemical Co..
American Cyanamid Co. ..18, 19
American Dehydrators Assn...
American Elev. & Grain Div...
American Mill Serv. Co. ....
Anchor Serum Co. .....
Anderson Box Co. .....
Andersons, The .....
Anderson, V. D., Co. 21
Andrews Machine Co. .....
Arbor Acres Farm 45
Archer-Daniels-Midland Co. ..
Arkell & Smiths .....
Armour & Co. 42, 43
Aubrey Feed Mills .....

Baker, H. J., & Bro. .....
Baker, J. T., Chem. Co. ...
Barnard & Leas Mfg. Co., Inc. 72
Barold Division, National Lead Co. 16
Bartlett, C. O., & Snow Co. 63
Barton Salt Co., The .....
Bates Grain Co. .....
Baughman Mfg. Co., Inc. ...
Baxter, A. E., Engineering Co.
Bemis Bro. Bag Co. .....
Berg, Paul .....
Bigelow Sales Co. 83
Black, Sivalls & Bryson, Inc...
Blatchford Calf Meal Co. .. 74
Blomfield-Swanson .....
Borden Company 88
Bosworth Commission Co. ...
Bowman Feed Prod., Inc. ... 30
Bremco Alfalfa Mills, Inc....
Brewers Yeast Council, Inc...
Brower Manufacturing Co. 49, 62
Brown, Fred G., Pulv. Co....
Bruce Milling Co. 79
Bryant Engineering Co. .....
Burlap Council, The .....
Burrell, James H., & Co., Inc.
Burrows Equipment Co. 83
Burrus Feed Mills .....
Butler Chemical Co. 23
Butler Mfg. Co. .....

C & K Processing Co. 72
Calcium Carbonate Co. 70
California Pellet Mill Co. 67
Caple, A. B., Co. .....
Cargill, Incorporated 74, 84
Carson Food Co. 68
Chambers, John C., Co. ....
Champion Portable Mill Co... 10
Chantland Mfg. Co. .....
Chase Bag Co. 74
Checkerboard Grain Co. ... 84
Chemo Puro Mfg. Corp. ....
Chemical Farming, Inc. .....
Chicago Feed Ingredient Co.
Citrus Processors Assn. .....
Cleveland Vibrator Co., The..
Clinton Corn Processing Co...
Clofine, Herbert K. .....
Colby Milling, Inc. .....
Collier Livestock-Feeder Co...
Colonial Poultry Farms .....
Columbia Phosphate Co. 50
Columbia Quarry Co. 66
Columbian Steel Tank Co. ..
Commercial Solvents Corp., 12, 13
Consolidated Blenders, Inc. .. 82
Continental Grain Co. 83
Corn Products Sales Co. 31
Coronet Phosphate Co. 77
Crete Mills 70
Cromwell Paper Co. .....
Crown Zellerbach Corp. .....
Cummings Schooler Co. ....

D. C. A. & Co. .....
Daffin Mfg. Co. 70
Dannen Mills, Inc. 15
Davis, H. C., Sons' Mfg. Co. 79
Dawe's Laboratories, Inc. 51
Day Company, The .....
Daycom, Inc. .....
Delaware Poultry Laboratories 26
Devold, Peder, Oil Co. ....
Diamond V Mills, Inc. .....
Distillation Products Industries 74
Distillers Feed Research Council .....
Doane Agricultural Serv., Inc.
Doane Feed Products Co. ....
Dorsey Trailers .....
Doty Laboratories 85
Douglas Chemical Co. 38, 39
Dow Chemical Co. 30
Duplex Mill & Mfg. Co..... 64
DuPont de Nemours & Co., Inc., E. I. 40, 41

Early & Daniel Co. .....
Eastman Chemical Prod., Inc. 14
Ehrsam, J. B., & Sons Mfg. Co., The .....
Elam Grain Co. 65
Entoleter Division, Safety Industries, Inc. .....
Eriez Mfg. Co. .....
Eschenheimer, Rudy, Co. 48
Eshelman, John W., & Sons..
Ewing, Ray, Co. 27

Farmers Mutual Hail Ins. Co. of Iowa .....
Feed Service Corp. .....
Fischbein, Dave, Co. .....
Flavor Corp. of America 17
Flour Mills of America .....
Food Mach. & Chem. Corp...
Forster Mfg. Co. 36
Fox Co. 21
Fox Valley Milk Feeds, Inc...
Fruen Milling Co. 7

Gaddis Bros. Mfg. Co. .....
Glidden Co., The .....
Gold Kist Peanut Growers ...
Gorton-Pew Fisheries 84
Grace Chemical Co. 57
Grain Processing Corp. 71
Grand River Chem. .....
Griffith Labs., Inc. 67
Gump, B. F., Co. .....

Hales & Hunter Co. .....
Hallet & Carey Co. .....
Hand, Peter, Foundation 3
Hardy, H. E., & Co. .....
Hardy Salt Co. .....
Harris-Crane, Inc. .....
Harshaw Chemical Co. .....
Hayes and Stolz 61
Haynie Menhaden Prod., Inc.
Heard-Kinard-Smith, Inc. ....
Heck, Edward J., & Sons Co..
Heil Co., The .....
Helm Manufacturing Co. ....
Henderson Mfg. Co. .....
Hercules Powder Co. .....
Hess & Clark, Inc. 17, 55
Heterochemical Corp. 59
Highway Equipment Co.
Hilltop Laboratories 33
Hoffman-Taff, Inc. 60
Hogenson Const. Co. 67
Hogg, N. D., Ltd. .....
Holt Products Co. .....
Homer Mfg. Co., Inc., The ..
Honeggers' & Co. 66
Honeymead Products Co. ....
Hot Spot Detector .....
Howes, S., Co., Inc. .....
Hubbard Milling Co. .....
Hubbell, Charles H. .....
Hygeno Litter Co. .....
Hy-Line Poultry Farms .....

Ibberson, T. E., Co. .....
Illinois Soy Products Co. 63
Indian Jute Mills Assn. .....
Industrial Commodity Corp...
Industrial Molasses .....
International Minerals & Chemical Corp. 5
International Paper Co. .....
International Salt Co., Inc... 32
Iowa Limestone Co. .....

Jackson, Gilbert, Co., Inc.... 61
Jacobson Machine Works ... 75
James Mfg. Co. .....
Jersee Co. 67
Johns-Manville .....
Jones-Hettelsater Const. Co... 65

Kalo Co. .....
Kansas Soya Prod. Co., Inc... 60
Kees & Company 66
Kellogg, Spencer, & Sons, Inc. 20
Kem Mfg. Co. .....
Kemp, C. M., Mfg. Co. .....
Kent Feeds .....
Kent, Percy, Bag Co., Inc...
Keystone Steel & Wire Co. ..
Kindstrom-Schmoll Co. .....
Koelsch, Charles J., Grain Co.
Koppers Co., Inc. .....
Kraft Bag Corp. .....
Kraft Foods Co. .....
Kuss, R. L., & Co., Inc. ....

Laboratory Construction Co...
LaBudde Feed & Grain Co... 61
Land O'Lakes Creameries, Inc.
Landers Milling Mfg. Co. ....
Lauhoff Grain Co. .....
Leftwich, J. H., & Co., Inc... 62
LeGear, Dr., Inc. .....
Lennox Industries, Inc. 73
Levens Mfg. Co. .....
Linck, O. E., Co., Inc. .....
Lilly, Eli, & Co. 25
Lima Armature Works .....
Limestone Products Corp. of America 58
Loncala Phosphate Co. 49
Longhorn Eng. Co. 64

M-G-R Feed Co., Inc. .....
McCabe Grain Co., Ltd. ..
McKesson & Robbins, Inc. ...
McMillen Feed Mills .....
Magnus, Mabee & Reynard ..
Maney Bros. Mill & Elev. Co. 7, 84
Marco Chemical Co. 54
Martenis, C. J., Grain Co...
Martin, Theo. W., & Son ...
Mayo Shell Corp. 61
Malos Mfg. Co. .....
Merchants Chemical Co., Inc.
Merck & Co., Inc. 28, 29
Mid-Continent Grain Co. ... 84
Midland Western 83
Mid-West Business Exchange. 78
Midwest Dried Milk Co. .....
Milbrew Co. 20
Mill & Elevator Co. .....
Miller Manufacturing Co. ....
Miller Publishing Co., The .. 80
Milligan & Son 85
Minneapolis Sewing Mach. Co.
Minnesota Linseed Oil Co... 59
Minnesota Specialty Co., Inc.
Monsanto Chemical Co. .....
Mooers Mfg. Co. .....
Morton Salt Co. 9
Munson Mill Machinery Co. ..
Murphy Products Co. .....
Myers-Sherman Company 54

Nagel, Herman, Co. 54
Natl. Alfalfa Dehydrating & Mlg. Co. .....
Natl. Cottonseed Prod. Assn., Inc. .....
Natl. Distillers Prod. Co. ...
National Lead Co. 16
Natl. Molasses Co. .....
National Oats Co. .....
National Renderers Assn.... 20
National Turkey Federation
Underwriters .....
National Vitamin Products Co.
Nellis Feed Co. 71
New Century Co., The .....
New England By-Prod. Co. .. 84
Nichols, Incorporated .....
Nootbaar, H. V., & Co. ...
Nopco Chemical Co. 65
North American Dodgen Co...
North American Trading & Import Co. .....
North Carolina Granite Corp. 11
North East Feed Mill Co. ...
Northwest Brewers Yeast, Inc.
Nutrena Mills, Inc. 74, 84

Oakes Mfg. Co. .....
Olavarria & Co., Inc. .....
Omega Machine Co., Div. of B-I-F Industries, Inc. ....
Oyster Shell Corp. 31
Oyster Shell Prod. Corp. ... 64

Pabst Brewing Co. .....
Panogen, Inc. .....
Paper-Calmenson & Co. 59
Park, Philip R., Inc. .....
Parks, J. P., Co. .....
Parrish & Heimbecker .....
Parrish, N. K. .....
Paxton Processing Co., Inc. .. 79
Pay Way Feed Mills, Inc. .. 68
Peavey, F. H., & Co. 49
Peerless Equip. Co., Inc.... 49
Penick, S. B., & Co. 71
Pfizer, Chas., & Co. 34, 35
Phelps Dodge Refining Corp...
Pillsbury Mills, Inc. .....
Pittsburgh Plate Glass Co... 66
Pless & Sheahan 79
Prater Pulverizer Co. 79
Pratt Bros. Co. 83
Pratt Labs., Inc. 62
Premier Peat Moss Corp. ...
Productive Acres Mfg. Co... 79
Publicker Industries, Inc. 69

Quaker Oats Co. .....

Ralston Purina Co. .....
Rapids Machinery Co. 50
Raymond Bag Corporation ..
Read, Gladwin A., Co. .....
Red River Alfalfa Co. .....
Red Star Yeast & Prod. Co...
Reliance Feed Co. 63
Rhodia, Inc. .....
Richardson, James, & Sons..
Richardson Scale Co. .....
Riley Feed Co. 36
Rion Crush Stone Corp. ....
River Rest Turkey Sales, Inc..
Rohloff Bros., Inc. .....
Roskamp Huller Mfg. Co., Inc.
Rosner-Hixson Laboratories .. 15
Ross Machine & Mill Supply.. 73
Ryde & Co. .....

Safety Industries, Inc. .....
St. Regis Paper Co. .....
Salsbury's, Dr., Labs. 52
Save-Way Feed Mills 21
Scanlan, Ivan, & Co. .....
Schenley Distillers, Inc. .....
Schroeder Sales Co. .....
Schuster-Wise Gr. & Feed Co.
Schutte Pulverizer Co., Inc... 60
Scroggins Grain Co. 22
Seagram, Joseph E., & Sons, Inc. .....
Seco, Inc. .....
Sedberry, J. B., Inc. 76
Seedburo Equipment Co. 16, 46, 47
Sheahan, Robert F. .....
Shellbuilder Co. 17
Shell Chemical Co. .....
Shuford, J. C., Co. .....
Sievert, C. W., & Associates
Simonsen Mfg. Co. 31
Small, The W. J., Co. .....
Smith, Edward E., & Co. .....
Soft Phosphate Research Inst.
Southwest Mill Supply Co. .. 79
Sparks-Waters, Farnen, Inc. ..
Special Products, Inc. .....
Specifide, Inc. 11
Spencer Kellogg & Sons, Inc.. 20
Sprout, Waldron & Co. Inc. 7, 15, 22, 26, 33, 84
Squibb, E. R., & Sons.....
Stabilized Vitamins, Inc. .....
Staley, A. E., Mfg. Co. .....
Staley Milling Co. .....
Standard Brands, Inc. 7, 10, 36, 71
Standard Feed & Fert., Inc...
Stauffer Chemical Co. 48
Stephens-Adamson Mfg. Co...
Sterwin Chemicals, Inc. .....
Stone Mountain Grit Co. .....
Strong-Scott Mfg. Co. .....
Sunset Feed & Grain Co. .....
Superior Feed Co. .....
Swanson, Carroll, Sales Co... 45
Swift & Co. .....
Syntha Lab. .....

T. D. F. Company .....
Tamms Industries .....
Taste Engineering, Inc. 70
Texas Mill Equipment Co.... 70
Thayer Scale & Eng. Corp...
Thomer Equipment Co. .....
Thompson Printing Co. .....
Ti-Co Industries .....
Tobias Enterprises 48
Toxite Laboratories .....
Truck Grain Blower Co. .....

Ultra-Life Laboratories, Inc... 53
Union Bag-Camp Paper Corp.
Union Special Machine Co...
U. S. Industrial Chem. Co. ..
Universal Hoist Co. .....
Upjohn Company, The .....

Van Dusen Harrington Co... 49
Vantress, Chas., Farms, Inc...
Van Waters & Rogers, Inc...
Vineland Laboratories, Inc. ..
Vitamins, Inc. 72
Vitren Corp. .....
Vy Lactos Laboratories, Inc... 49

W-W Grinder Corporation .. 62
Wallace & Tiernan Inc. .....
Warren-Douglas Chemical Co. 49
Weller, B. I., Co. 66
Wells, Ralph, & Co. .....
Wenger Mixer Mfg. Co. 68
Wertz Feed Co. 58
Western Condensing Co. ....
Western Yeast Co. .....
White Laboratories, Inc. ... 37
White Shell Corp. .....
Whitmoyer Laboratories, Inc.. 22
Wilhoit Laboratory 70
Wilson & Co., Inc. .....
Wilson, R. S., Co. 61
Wirthmore Feeds .....
Wisconsin Alumni Research Foundation 61
Woodward & Dickerson, Inc...

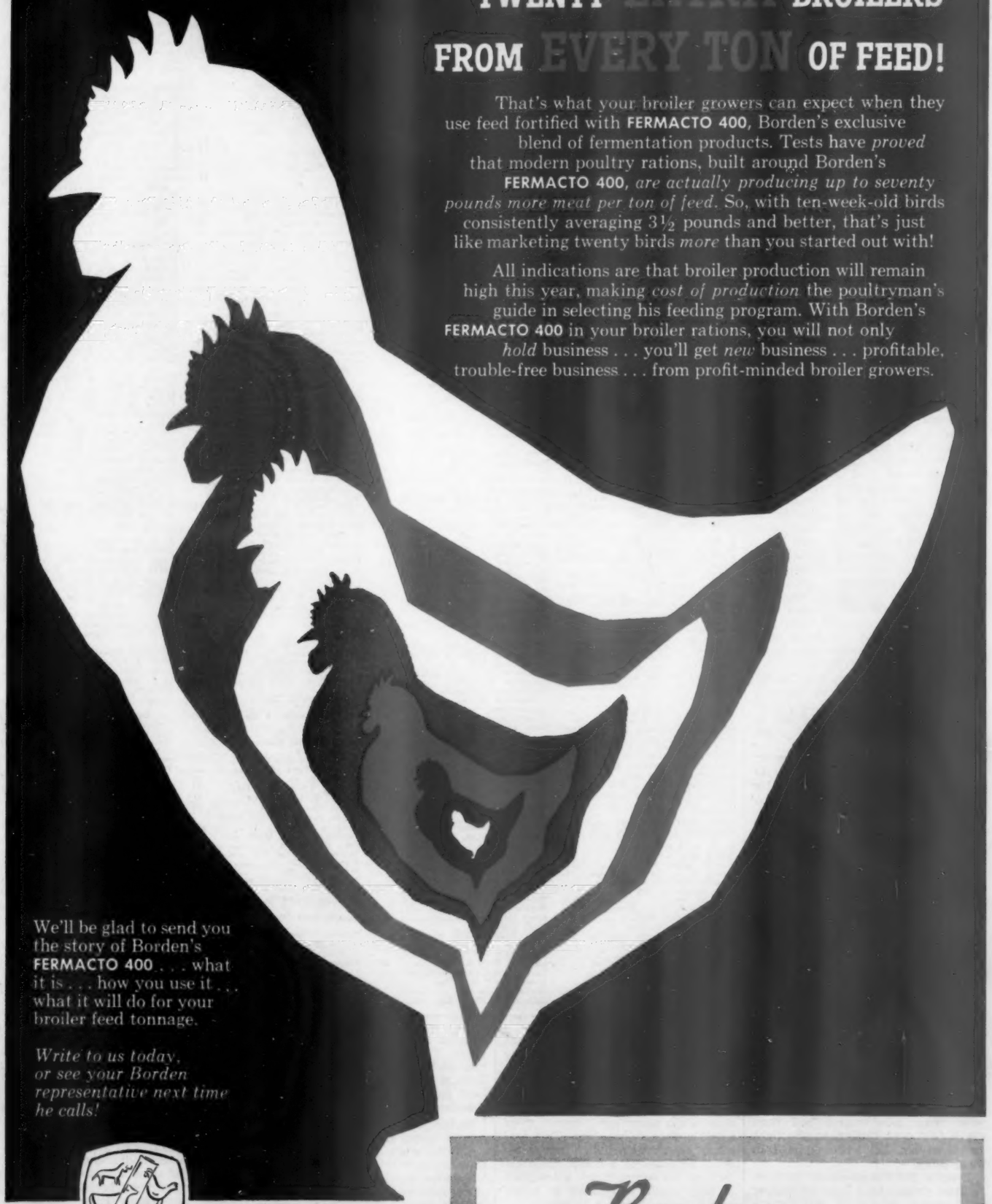
Younglove Construction Co...
Young, John F., Co. 4

Zellers' Laboratories .....

TWENTY EXTRA BROILERS FROM EVERY TON OF FEED!

That's what your broiler growers can expect when they use feed fortified with **FERMACTO 400**, Borden's exclusive blend of fermentation products. Tests have *proved* that modern poultry rations, built around Borden's **FERMACTO 400**, *are actually producing up to seventy pounds more meat per ton of feed.* So, with ten-week-old birds consistently averaging 3½ pounds and better, that's just like marketing twenty birds *more* than you started out with!

All indications are that broiler production will remain high this year, making *cost of production* the poultryman's guide in selecting his feeding program. With Borden's **FERMACTO 400** in your broiler rations, you will not only *hold* business . . . you'll get *new* business . . . profitable, trouble-free business . . . from profit-minded broiler growers.



We'll be glad to send you the story of Borden's **FERMACTO 400** . . . what it is . . . how you use it . . . what it will do for your broiler feed tonnage.

Write to us today, or see your Borden representative next time he calls!

BETTER FEEDS THROUGH RESEARCH

THE *Borden* COMPANY
FEED SUPPLEMENTS DEPARTMENT
350 MADISON AVENUE, NEW YORK 17, N. Y.
Laboratories and test farms at Elgin, Illinois